ONTARIO MINISTRY OF ENVIRONMENT
36936000025147

REPORT ON THE 1985 INDUSTRIAL DISCHARGES INTO THE GREAT LAKES BASIN

— ONTARIO —

February 06, 1987

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REPORT ON THE

1985 INDUSTRIAL DISCHARGES

INTO

THE GREAT LAKES BASIN

— ONTARIO —

February 06, 1987

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REPORT ON DIRECT INDUSTRIAL DISCHARGES IN THE GREAT LAKES BASIN 1985

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Report on the 1985 Industrial Discharges
into the
Great Lakes Basin
Ontario

FOREWORD

This submission of information on industrial dischargers in the Great Lakes Basin - Ontario to the International Joint Commission is in accordance with the 1978 Canada - U.S. Agreement on Great Lakes Water Quality. This report is an extract from the document entitled "Report on the 1985 Industrial Discharges in Ontario" December 1986. Monthly averages and monthly compliance as well as annual averages and compliance are shown in this report prepared by the Water Resources Branch, Ontario Ministry of the Environment.

This report includes industrial sources which discharge directly or indirectly to the boundary waters of the Great Lakes and contains the following information:

Alphabetical lists of Ontario sources in the Great Lakes Basin

Separate compliance tables for sources reported in the 1984 Discharges Inventory and for additional sources in the Great Lakes Basin.

Wastewater discharge summary sheets for sources in the Great Lakes Basin (these have been separated into two sections; 'sources reported in 1984' and 'additional sources').

The information recorded for each source listed in the inventory includes:

The name of the facility.

The municipality in which the discharger is located.

Whether the facility is an indirect or a direct discharger to the boundary waters.

Status of compliance and comments on industry and Ministry activities in dealing with companies in non-compiance status.

Monthly loadings in kilograms/day for monitored parameters (including flow). Where there is no flow measured at a facility concentrations are provided instead. Some discharges are seasonal and thus twelve monthly results are not available. Some pollutants are reported on a quarterly or semi-annual basis.

COMPLIANCE SUMMARY

The actual monthly average and the calculated annual averages were compared to the pollutant limit or requirement. For comparison to the previous year the compliance tables in this report have been divided into two parts: 'Table 01 - Compliance Summary IJC (Based on Sources Reported in 1984)' and 'Table 02 - Additional Sources in the Great Lakes Basin'.

For the year 1985 the compliance status is as follows (including additional sources):

Sources reported in 1985 (additional sources only):	130(27)
In (out of) compliance with monthly averages;	42(86)
In (out of) compliance with annual averages;	75(55)
Companies with no requirements;	2

In comparing 1984 compliance status with 1985, only annual averages are presented (not including additional sources):

	1985	1984
Total Reporting	103	105
Total in non-compliance	47	45
Total in Compliance	54	55
No requirement	2	5

Parameters which have been exceeded by a source are identified. For companies not in compliance, refer to the company source sheets for comments.

The word "compliance" as used in this report does not indicate that no contraventions of the legislation and regulations have occurred, but rather that the data recorded in the report do not demonstrate that there have been contraventions.

For a more comprehensive description of Ministry of the Environment abatement programs, refer to the report entitled: "Report on the 1985 Industrial Discharges in Ontario". Copies of this report are available from:

Communications Branch
Ministry of the Environment
135 St. Clair Ave., West, 6th Floor
Toronto, Ontario
M4V 1P5

Enquiries concerning this report and the industrial abatement program may be directed to the:

Supervisor - Industrial Wastewater Unit
Water Resources Branch
1 St. Clair Avenue West (4th floor)
Toronto, Ontario
(416) 323-4886

ALPHABETICAL LIST OF SOURCES
(Sources Reported in the 1984 Dischargers Inventory)

COMPANY NAME	LOCATION	PAGE NUMBER
ABITIBI-PRICE INC. (FT. WILLIAM DIV.)	THUNDER BAY	1
ABITIBI-PRICE INC. (PROVINCIAL PAPERS DIV.)	THUNDER BAY	3
ABITIBI-PRICE INC. (THUNDER BAY DIV.)	THUNDER BAY	5
AMERICAN STANDARD DIVISION OF WABCO STANDARD	CAMBRIDGE	7
ATLAS STEEL COMPANY LTD.	WELLAND	9
BCL (FORMERLY TCF)	CORNWALL	11
BEAVER WOOD FIBRE COMPANY	THOROLD	13
B. F. GOODRICH	NIAGARA FALLS	15
BORG-WARNER CHEMICALS LTD.	COBOURG	17
CANADIAN CANNERS LTD.	ST. DAVID	19
CANADIAN INDUSTRIES LTD.	CORNWALL	21
CANADIAN INDUSTRIES LTD.	COURTRIGHT	23
CANADIAN OXY-DUREZ	FORT ERIE	25
CELANESE CANADA LTD.	ERNESTOWN TWP.	27
COURTAULDS LTD.	CORNWALL	29
CYANAMID CANADA LTD.	NIAGARA FALLS	31
CYANAMID CANADA LTD. (WELLAND PLANT)	NIAGARA FALLS	33
DENISON MINES LTD. (0001680008)	ELLIOT LAKE	35
DOFASCO INC	HAMILTON	37
DOMTAR CHEMICALS LTD.	GODERICH	39
DOMTAR CONSTRUCTION MATERIALS LTD.	THOROLD	41
DOMTAR FINE PAPERS	CORNWALL	43
DOMTAR FINE PAPERS	ST. CATHARINES	45
DOMTAR PACKAGING LTD.	RED ROCK	47
DOMTAR PACKAGING LTD.	TRENTON	49
DOW CHEMICAL CANADA LTD.	SARNIA	51
DUPONT CANADA INC.	CORUNNA	53
DUPONT CANADA INC. (TETRA ETHYL LEAD)	MAITLAND	55
DUPONT CANADA INC. (NYLON INTERMEDIATES)	MAITLAND	57
E. B. EDDY FOREST PRODUCTS LTD.	ESPANOLA	59
ELDORADO NUCLEAR LTD.	PORT HOPE	61
ELDORADO NUCLEAR LTD.	PORT GRANBY	63
ELDORADO NUCLEAR LTD.	WELCOME	65
ESSO CHEMICALS CANADA LTD.	SARNIA	67
ESSO PETROLEUM CANADA	SARNIA	69
ETHYL CANADA INC.	CORUNNA	71
FALCONBRIDGE LTD.	FALCONBRIDGE	73
FALCONBRIDGE LTD. (MOOSE LAKE)	FALCONBRIDGE	75
FALCONBRIDGE LTD. ONAPING MINE	ONAPING FALLS	77
FIBERGLAS CANADA LTD.	SARNIA	79
FLEET MANUFACTURING COMPANY LTD.	FORT ERIE	81
FORD MOTOR COMPANY OF CANADA LTD.	NIAGARA FALLS	83
FORD MOTOR COMPANY OF CANADA LTD.	OAKVILLE	85
FORD MOTOR COMPANY OF CANADA LTD.	ST. THOMAS	87

ALPHABETICAL LIST OF SOURCES (continued)
(Sources Reported in the 1984 Dischargers Inventory)

COMPANY NAME	LOCATION	PAGE NUMBER
FORD MOTOR COMPANY OF CANADA LTD.	WINDSOR	89
FRASER INC.	THOROLD	91
GENERAL CHEMICAL CANADA INC.	AMHERSTBURG	93
GENERAL MOTORS OF CANADA LTD.	ST. CATHARINES	95
GNB BATTERIES CANADA LTD.	FORT ERIE	97
GREAT LAKES FOREST PRODUCTS LTD.	THUNDER BAY	99
H. J. HEINZ COMPANY OF CANADA LTD.	LEAMINGTON	101
INCO LTD. ((COPPER CLIFF CREEK WASTEWATER TR)	SUDBURY	103
INCO LTD. (NOLIN CREEK)	SUDBURY	105
INCO LTD. (GARSON MINE)	SUDBURY	107
INCO LTD. SULPHUR PRODUCTS DEPT.	SUDBURY	109
INCO METALS LTD.	PORT COLBORNE	112
INTERNATIONAL MINERALS AND CHEMICALS	DUNNVILLE	114
JAMES RIVER MARATHON LTD.	MARATHON	116
J. M. SCHNEIDER INC.	AYR	118
KIMBERLY CLARK OF CANADA LTD.	ST. CATHARINES	120
KIMBERLY CLARK OF CANADA LTD.	TERRACE BAY	122
KRAFT FOODS LTD.	INGLESIDE	124
MACMILLAN BLOEDEL LTD.	STURGEON FALLS	126
NITROCHEM INC.	MAITLAND	128
NORTON COMPANY	NIAGARA FALLS	130
OGILVIE MILLS	THUNDER BAY	132
OMSTEAD FOOD LTD.	WHEATLEY	134
ONTARIO HYDRO (TGS) (LAMBTON)	COURTRIGHT	136
ONTARIO HYDRO (TGS)	NANTICOKE	138
ONTARIO HYDRO (THERMAL DATA)	NANTICOKE	140
ONTARIO HYDRO (TGS) (THUNDER BAY)	THUNDER BAY	142
ONTARIO HYDRO (DOMESTIC TREATMENT)	TIVERTON	144
ONTARIO HYDRO (HEAVY WATER PLANT)	TIVERTON	146
ONTARIO HYDRO (THERMAL DATA STATIONS A AND B)	TIVERTON	148
ONTARIO HYDRO (TGS) (LAKEVIEW)	TORONTO	150
PETRO CANADA PRODUCTS LTD. (FORMERLY GULF CAN.)	MISSISSAUGA	152
PETRO CANADA PRODUCTS LTD.	OAKVILLE	154
PETROSAR LTD.	SARNIA	156
POLYSAR LTD.	SARNIA	158
REICHHOLD CHEMICALS LTD.	THUNDER BAY	160
RIO ALGOM LTD. (PANEL MILL)	ELLIOT LAKE	162
RIO ALGOM LTD. (QUIRKE MILL)	ELLIOT LAKE	164
RIO ALGOM LTD. (STANLEIGH MILL)	ELLIOT LAKE	166
SHELL CANADA LTD.	CORUNNA	168
SOHIO	NIAGARA FALLS	170
STANLEY HARDWARE, DIV. OF STANLEY CANADA INC.	NEW HAMBURG	172
STELCO INC.	HAMILTON	174
STELCO INC. LAKE ERIE WORKS	NANTICOKE	176
STELCO PAGE HERSEY WORKS	WELLAND	180
STELCO WELLAND TUBE WORKS	WELLAND	182
ST. MARYS PAPER INC.	SAULT STE. MARIE	184

ALPHABETICAL LIST OF SOURCES (continued)
(Sources Reported in the 1984 Dischargers Inventory)

COMPANY NAME	LOCATION	PAGE NUMBER
STRATHCONA PAPER COMPANY	CAMDEN EAST TWP.	186
SUNCOR SUNOCO GROUP	SARNIA	188
TEND-R-FRESH LTD. (DIV. OF MAPLE LEAF MILLS)	PETERSBURG	190
TEXACO CANADA LTD. (NANTICOKE REFINERY)	JARVIS	192
TEXACO CANADA LTD.	PORT CREDIT	194
THE ALGOMA STEEL CORPORATION LTD.	SAULT STE. MARIE	196
THE CANADA STARCH CO. LTD.	CARDINAL	200
THE CANADIAN SALT COMPANY LTD.	WINDSOR	202
THE ONTARIO PAPER COMPANY INC.	THOROLD	204
TRENT VALLEY PAPERBOARD MILLS	TRENTON	206
UNION CARBIDE CANADA LTD.	CORUNNA	208
WICKES MANUFACTURING CO. LTD	WINDSOR	210

ALPHABETICAL LIST OF SOURCES
(Additional Sources in the Great Lakes Basin)

COMPANY NAME	LOCATION	PAGE NUMBER
BAKELITE THERMOSETS LTD.	BELLEVILLE	212
BLACKSTONE INDUSTRIAL PRODUCTS	STRATFORD	214
CAMPBELL SOUP COMPANY LTD.	ST MARYS	216
CHAMPLAIN INDUSTRIES LTD.	TARA	218
CHESAPEAKE AND OHIO RAILWAY CO. LTD.	ST. THOMAS	220
CORBY DISTILLERIES LIMITED	CORBYVILLE	222
DENISON MINES LTD. (WILLIAMS LAKE)	ELLIOT LAKE	224
DENISON MINES LTD. (STANROCK)	ELLIOT LAKE	226
DOMTAR CHEMICALS LTD. CDC DIVISION	ORILLIA	228
DOMTAR WOOD PRESERVING LTD.	TRENTON	230
DUPONT CANADA INC. (NIPISSING WORKS)	NORTH BAY	232
DUPONT CANADA INC.	KINGSTON TWP	234
ELDORADO RESOURCES LTD.	BLIND RIVER	236
EXOLON	THOROLD	238
GAY LEE FOODS COOPERATIVE LTD.	TEESWATER	240
INCO METALS LTD.	SHEBANDOWAN	242
INCO LTD. (COPPER CLIFF CREEK NICKEL REF.)	SUDBURY	244
INCO LTD. (CREAN HILL)	SUDBURY	246
INCO LTD. (LEVAK TAILINGS AREA)	SUDBURY	248
INCO LTD. (FROOD STOBIE)	SUDBURY	250
KIMBERLY CLARK OF CANADA LTD.	HUNTSVILLE	252
MITSUBISHI ELECTRONICS LTD.	MIDLAND	254
NORANDA HEMLO INC.	MARATHON	256
NORANDA MINES LTD. GECO DIVISION	MANITOUWADGE	258
SHERMAN MINE	TEMAGAMI	260
THE ALGOMA STEEL CORP. LTD. (ORE DIV.)	WAWA	262
WASHINGTON MILLS LTD.	NIAGARA FALLS	264

TABLE 1

1985 COMPLIANCE SUMMARY IJC

(Based on Sources Reported 1984)

COMPANY NAME	LOCATION	PAGE NUMBER	IN COMPLIANCE MONTHLY	IN COMPLIANCE ANNUAL	COMPANY INSTITUTING CONTROLS	SEE COMPANY SHEET	CONTROL ORDER REQUIRES FURTHER REDUCTIONS	PARAMETERS IN EXCEEDANCE OF MINISTRY GUIDELINES
ABITIBI-PRICE INC. (FT. WILLIAM DIV.)	THUNDER BAY	1	X	X			X	
ABITIBI-PRICE INC. (PROVINCIAL PAPERS DIV.)	THUNDER BAY	3	X	X			X	
ABITIBI-PRICE INC. (THUNDER BAY DIV.)	THUNDER BAY	5	X	X			X	
AMERICAN STANDARD DIVISION OF WABCO STANDARD	CAMBRIDGE	7				X		IRON, SS, pH
ATLAS STEEL COMPANY LTD.	WELLAND	9				X		IRON
BCL (FORMERLY TCF)	CORNWALL	11					(X)	ACIDITY, BOD
BEAVER WOOD FIBRE COMPANY	THOROLD	13						BOD, SS
B. F. GOODRICH	NIAGARA FALLS	15				X		BOD, SS
BORG-WARNER CHEMICALS LTD.	COBOURG	17			X	X		SS, PHOSPHORUS
CANADIAN CANNERS LTD.	ST. DAVID	19						SS
CANADIAN INDUSTRIES LTD.	CORNWALL	21	X	X				
CANADIAN INDUSTRIES LTD.	COURTRIGHT	23	X	X				
CANADIAN OXY-DUREZ	FORT ERIE	25						PHENOLICS
CELANESE CANADA LTD.	ERNESTOWN TWP.	27					X	BOD, COD, SS
COURTAULDS LTD.	CORNWALL	29					X	BOD
CYANAMID CANADA LTD.	NIAGARA FALLS	31	X	X				
CYANAMID CANADA LTD. (WELLAND PLANT)	NIAGARA FALLS	33						BOD, PHOSPHORUS, SS, AMMONIA
DENISON MINES LTD. (000016B000B)	ELLIOT LAKE	35	X	X				
DOFASCO INC	HAMILTON	37		X			X	PHENOLICS, SS
DOMTAR CHEMICALS LTD.	GODERICH	39	NO REQUIREMENT			X		
DOMTAR CONSTRUCTION MATERIALS LTD.	THOROLD	41						BOD
DOMTAR FINE PAPERS	CORNWALL	43	X	X			X	
DOMTAR FINE PAPERS	ST. CATHARINES	45			X			BOD
DOMTAR PACKAGING LTD.	RED ROCK	47	X	X			X	
DOMTAR PACKAGING LTD.	TRENTON	49		X				BOD, SS
DOW CHEMICAL CANADA LTD.	SARNIA	51	X	X				
DUPONT CANADA INC.	CORUNNA	53		X		X		PHENOLICS
DUPONT CANADA INC. (TETRA ETHYL LEAD)	MAITLAND	55				X		LEAD
DUPONT CANADA INC. (NYLON INTERMEDIATES)	MAITLAND	57		X				SS
E. B. EDDY FOREST PRODUCTS LTD.	ESPANOLA	59	X	X				
ELDORADO NUCLEAR LTD.	PORT HOPE	61	X	X				
ELDORADO NUCLEAR LTD.	PORT GRANBY	63				X		ARSENIC, pH
ELDORADO NUCLEAR LTD.	WELCOME	65			X	X		ARSENIC
ESSO CHEMICALS CANADA LTD.	SARNIA	67		X		X		SS
ESSO PETROLEUM CANADA	SARNIA	69	X	X				

TABLE 1 ..continued

1985 COMPLIANCE SUMMARY IJC
(Based on Sources Reported 1984)

COMPANY NAME	LOCATION	PAGE NUMBER	IN COMPLIANCE MONTHLY	IN COMPLIANCE ANNUAL	COMPANY INSTITUTING CONTROLS	SEE COMPANY SHEET	CONTROL ORDER REQUIRES FURTHER REDUCTIONS	PARAMETERS IN EXCEEDANCE OF MINISTRY GUIDELINES
ETHYL CANADA INC.	CORUNNA	71		X		X		LEAD
FALCONBRIDGE LTD.	FALCONBRIDGE	73		X				IRON
FALCONBRIDGE LTD. (MOOSE LAKE)	FALCONBRIDGE	75		X				SS
FALCONBRIDGE LTD. ONAPING MINE	ONAPING FALLS	77						SS
FIBERGLAS CANADA LTD.	SARNIA	79		X		X		PHENOLICS
FLEET MANUFACTURING COMPANY LTD.	FORT ERIE	81			X	X		CHROMIUM, SS
FORD MOTOR COMPANY OF CANADA LTD.	NIAGARA FALLS	83			X			PHOSPHORUS, SS
FORD MOTOR COMPANY OF CANADA LTD.	OAKVILLE	85				X		BOD, PHENOLICS, SS
FORD MOTOR COMPANY OF CANADA LTD.	ST. THOMAS	87		X	X	X		SS
FORD MOTOR COMPANY OF CANADA LTD.	WINDSOR	89				X		PHENOLICS, SS
FRASER INC.	THOROLD	91						BOD, SS
GENERAL CHEMICAL CANADA INC.	AMHERSTBURG	93		X				pH
GENERAL MOTORS OF CANADA LTD.	ST. CATHARINES	95		X		X		PHENOLICS, SS
GNB BATTERIES CANADA LTD.	FORT ERIE	97				X		LEAD, SS,pH
GREAT LAKES FOREST PRODUCTS LTD.	THUNDER BAY	99		X			X	PHOSPHORUS, SS
H. J. HEINZ COMPANY OF CANADA LTD.	LEAMINGTON	101			X			BOD, SS
INCO LTD. ((COPPER CLIFF CREEK WASTEWATER TR)	SUDBURY	103		X				IRON, NICKEL, pH
INCO LTD. (NOLIN CREEK)	SUDBURY	105						
INCO LTD. (GARSON MINE)	SUDBURY	107		X				pH, SS
INCO LTD. SULPHUR PRODUCTS DEPT.	SUDBURY	109						IRON, NICKEL, pH, SS
INCO METALS LTD.	PORT COLBORNE	112		X				NICKEL, SS
INTERNATIONAL MINERALS AND CHEMICALS	DUNNVILLE	114				X		PHOSPHORUS
JAMES RIVER MARATHON LTD.	MARATHON	116	X	X			X	
J. M. SCHNEIDER INC.	AYR	118			X	X		ALL PARAMETERS LISTED
KIMBERLY CLARK OF CANADA LTD.	ST. CATHARINES	120						BOD
KIMBERLY CLARK OF CANADA LTD.	TERRACE BAY	122	X	X			X	
KRAFT FOODS LTD.	INGLESIDE	124				X	X	BOD
MACMILLAN BLOEDEL LTD.	STURGEON FALLS	126			X	X	X	BOD
NITROCHEM INC.	MAITLAND	128			X			NITRATES, NITROGEN
NORTON COMPANY	NIAGARA FALLS	130		X				SS, pH
OGILVIE MILLS	THUNDER BAY	132					X	BOD
OMSTEAD FOOD LTD.	WHEATLEY	134						BOD, PHOSPHORUS, SS
ONTARIO HYDRO (TGS) (LAMBTON)	COURTRIGHT	136		X		X		
ONTARIO HYDRO (TGS)	NANTICOKE	138		X				SS
ONTARIO HYDRO (THERMAL DATA)	NANTICOKE	140	X	X				

TABLE 1 ..continued

1985 COMPLIANCE SUMMARY IJC ..continued

(Based on Sources Reported 1984)

COMPANY NAME	LOCATION	PAGE NUMBER	IN COMPLIANCE MONTHLY	IN COMPLIANCE ANNUAL	COMPANY INSTITUTING CONTROLS	SEE COMPANY SHEET	CONTROL ORDER REQUIRES FURTHER REDUCTIONS	PARAMETERS IN EXCEEDANCE OF MINISTRY GUIDELINES
ONTARIO HYDRO (TGS) (THUNDER BAY)	THUNDER BAY	142	X	X				
ONTARIO HYDRO (DOMESTIC TREATMENT)	TIVERTON	144	N/A	X		X		
ONTARIO HYDRO (HEAVY WATER PLANT)	TIVERTON	146	X	X				
ONTARIO HYDRO (THERMAL DATA STATIONS A AND B)	TIVERTON	148	X	X				
ONTARIO HYDRO (TGS) (LAKEVIEW)	TORONTO	150	X	X				
PETRO CANADA PRODUCTS LTD. (FORMERLY GULF CAN.)	MISSISSAUGA	152				X		OIL & GREASE, PHENOLS, SS
PETRO CANADA PRODUCTS LTD.	OAKVILLE	154				X		AMMONIA, PHENOLICS, SS
PETROSAR LTD.	SARNIA	156		X		X		PHENOLICS
POLYSAR LTD.	SARNIA	158	X	X				
REICHHOLD CHEMICALS LTD.	THUNDER BAY	160				X		PHENOLICS, SS
RIO ALGOM LTD. (PANEL MILL)	ELLIOT LAKE	162	X	X				
RIO ALGOM LTD. (QUIRKE MILL)	ELLIOT LAKE	164						IRON, SS
RIO ALGOM LTD. (STANLEIGH MILL)	ELLIOT LAKE	166		X				IRON
SHELL CANADA LTD.	CORUNNA	168	X	X		X		
SOHIO	NIAGARA FALLS	170		X				SS
STANLEY HARDWARE, DIV. OF STANLEY CANADA INC.	NEW HAMBURG	172			X	X		CYANIDE, NICKEL, SS, ZINC
STELCO INC.	HAMILTON	174			X		X	PHENOLICS, SS, IRON
STELCO INC. LAKE ERIE WORKS	NANTICOKE	176				X		BOD, IRON, LEAD, SS
STELCO PAGE HERSEY WORKS	WELLAND	180	X	X				
STELCO WELLAND TUBE WORKS	WELLAND	182		X				IRON
ST. MARYS PAPER INC.	SAULT STE. MARIE	184	X	X				
STRATHCONA PAPER COMPANY	CAMDEN EAST TWP.	186	X	X			X	
SUNCOR SUNOCO GROUP	SARNIA	188		X		X		PHENOLICS
TEND-R-FRESH LTD. (DIV. OF MAPLE LEAF MILLS)	PETERSBURG	190			X	X		BOD, OIL & GREASE, PHOSPHORUS, SS
TEXACO CANADA LTD. (NANTICOKE REFINERY)	JARVIS	192	X	X				
TEXACO CANADA LTD.	PORT CREDIT	194				X		PHENOLICS, SS
THE ALGOMA STEEL CORPORATION LTD.	SAULT STE. MARIE	196	NO REQUIREMENT				X	
THE CANADA STARCH CO. LTD.	CARDINAL	200					X	COD, SS
THE CANADIAN SALT COMPANY LTD.	WINDSOR	202		X				SS
THE ONTARIO PAPER COMPANY INC.	THOROLD	204	X	X				
TRENT VALLEY PAPERBOARD MILLS	TRENTON	206					X	BOD, SS
UNION CARBIDE CANADA LTD.	CORUNNA	208				X		SS
WICKES MANUFACTURING CO. LTD	WINDSOR	210			X	X		NICKEL, SS

FOOTNOTE								
N/A - NOT APPLICABLE								
AMEROCK INC. (IN 1984 INVENTORY)	MEAFORD		DISCHARGE IN	TO MUNICIPAL	SEWER			
SILKNIT LTD. TEXTILE DIVISION	CAMBRIDGE		PLANT CLOSED					
INTERNATIONAL MINERALS AND CHEMICALS	DUNNVILLE		PRODUCTION S	TOPPED JULY	1984, TREATM	ENT SYSTEM	KEPT OPERATIONAL	

TABLE 2

1985 COMPLIANCE SUMMARY ADDITIONAL SOURCES IN THE GREAT LAKES BASIN

COMPANY NAME	LOCATION	PAGE NUMBER	IN COMPLIANCE MONTHLY	IN COMPLIANCE ANNUAL	COMPANY INSTITUTING CONTROLS	SEE COMPANY SHEET	CONTROL ORDER REQUIRES FURTHER REDUCTIONS	PARAMETERS IN EXCEEDANCE OF MINISTRY GUIDELINES
BAKELITE THERMOSETS LTD.	BELLEVILLE	212						PHENOLICS
BLACKSTONE INDUSTRIAL PRODUCTS	STRATFORD	214	X	X				
CAMPBELL SOUP COMPANY LTD.	ST MARYS	216						BOD, SS
CHAMPLAIN INDUSTRIES LTD.	TARA	218	X	X				
CHESAPEAKE AND OHIO RAILWAY CO. LTD.	ST. THOMAS	220	X	X				
CORBY DISTILLERIES LIMITED	CORBYVILLE	222	X	X				
DENISON MINES LTD. (WILLIAMS LAKE)	ELLIOT LAKE	224		X				SS
DENISON MINES LTD. (STANROCK)	ELLIOT LAKE	226		X				pH
DOMTAR CHEMICALS LTD. CDC DIVISION	ORILLIA	228	X	X				
DOMTAR WOOD PRESERVING LTD.	TRENTON	230			X	X	X	PHENOLICS, PENTACHLOROPHENOL
DUPONT CANADA INC. (NIPISSING WORKS)	NORTH BAY	232	X	X				
DUPONT CANADA INC.	KINGSTON TWP	234	X	X				
ELDORADO RESOURCES LTD.	BLIND RIVER	236	X	X				
EXOLON	THOROLD	238				X		SS
GAY LEE FOODS COOPERATIVE LTD.	TEESWATER	240	X	X				
INCO METALS LTD.	SHEBANDOWAN	242	X	X				
INCO LTD. (COPPER CLIFF CREEK NICKEL REF.)	SUDBURY	244		X				NICKEL, pH
INCO LTD. (CREAN HILL)	SUDBURY	246		X				pH, NICKEL
INCO LTD. (LEVAK TAILINGS AREA)	SUDBURY	248		X				AMMONIA, pH, SS
INCO LTD. (FROOD STOBIE)	SUDBURY	250						AMMONIA, COPPER, IRON, NICKEL, pH, SS
KIMBERLY CLARK OF CANADA LTD.	HUNTSVILLE	252	X	X				
MITSUBISHI ELECTRONICS LTD.	MIDLAND	254	X	X			X	
NORANDA HEMLO INC.	MARATHON	256		X				pH
NORANDA MINES LTD. GECO DIVISION	MANITOUWADGE	258						SS
SHERMAN MINE	TEMAGAMI	260	X	X				
THE ALGOMA STEEL CORP. LTD. (ORE DIV.)	WAWA	262	X	X		X		
WASHINGTON MILLS LTD.	NIAGARA FALLS	264		X				SS

Appendix A

Industrial Wastewater Discharge Summary Sheets
(sources reported in the 1984 Dischargers Inventory)

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Abitibi-Price Inc.
Fort William Division
Thunder Bay

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Lake Superior (Thunder Bay) INDIRECT:

DESCRIPTION OF ACTIVITY: Newsprint is made from logs and chips by using the stone groundwood and Sulphonated Chemical Mechanical processes.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibre) and organic compounds from the pulping processes.

EFFLUENT TREATMENT: Clarifier and lagoons.

DISCHARGE TYPE: continuous surface

COMMENTS:

In compliance.
Effluent quality met Ministry requirements. A new Control Order was issued on April 29, 1985. The company is required to meet specific BOD and TSS loadings on the total mill effluent discharged (BOD - 14.5 metric tonnes per day and TSS - 2.5 metric tonnes per day). In addition the company is required to address effluent toxicity.
The combined final effluent was sampled three times during 1985 and tested by aerated 96-hr. rainbow trout bioassays. The LC50's were estimated to have been equal to 42.8%, 42.8% and 47.9%.

IMIS NUMBER: 0000860205 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

ABITIBI-PRICE - 0000860205
FORT WILLIAM DIVISION

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		23600	20400	21300	20700	20090	21800	23020	23800	21400	23800	28200	26050	23300	
BIOCHEM. OXYGEN DEMAND	ACTUAL	9600	9600	10800	9670	6230	7500	6370	6900	6640	8030	9750	1090	7680	
	REQUIREMENT	14500	14500	14500	14500	14500	14500	14500	14500	14500	14500	14500	14500	14500	
PHOSPHOROUS TOTAL	ACTUAL	9.3	7.83	10.6	16.1	7.63	8.5	8.5	10.13	9.2	11.2	11.8	18.5	10.8	
	REQUIREMENT	23.6	20.4	21.3	20.7	20.1	21.8	23	23.8	21.4	23.7	32	27.7	23.3	
DISSOLVED SOLIDS	ACTUAL	31100	22700	28900	–	–	–	–	–	–	–	–	–		
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	1230	1200	1510	1600	1140	1130	1260	790	1180	830	1030	1600	1210	
	REQUIREMENT	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Abitibi-Price Inc.
Provincial Papers Division
Thunder Bay

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Lake Superior (Thunder Bay) INDIRECT:

DESCRIPTION OF ACTIVITY: Fine papers are made from groundwood pulp and purchased pulp.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibre) and many organic compounds from the pulping processes.

EFFLUENT TREATMENT: Clarifier and lagoons.

DISCHARGE TYPE: continuous surface

COMMENTS:

In compliance.
A new Control Order was issued on April 29, 1985. The company is required to meet specific BOD and TSS loadings in the total mill effluent discharged (BOD - 7.3 metric tonnes per day and TSS 2.5 metric tonnes per day). In addition, the company is required to address effluent toxicity.
The final effluent was sampled once during 1985 and tested by aerated 96-hr. rainbow trout bioassay. The sample was found to have been non-lethal. Effluent toxicity complies with Federal Fisheries Act regulations, more than 50% of fish survived in undiluted effluent.

IMIS NUMBER: 0000860106 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

ABITIBI-PRICE - 0000860106
PROVINCIAL PAPER DIVISION

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		44100	50200	53500	56100	55460	52800	55800	58500	55500	55900	55700	46900	53400	
BIOCHEM. OXYGEN DEMAND	ACTUAL	3620	4270	4170	4710	4490	3750	3510	4270	3940	3520	3730	3380	3950	
	REQUIREMENT	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	
PHOSPHOROUS TOTAL	ACTUAL	2.21	2.81	3.53	3.53	3.22	2.75	3.12	2.4	2.77	2.79	3.9	1.31	2.86	
	REQUIREMENT	44.1	50.2	53.5	56.1	55.5	52.8	55.8	58.5	55.5	55.9	55.7	46.9	53.4	
DISSOLVED SOLIDS	ACTUAL	10100	13600	12200	13400	-	-	-	-	-	-	-	-	-	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	1590	2100	1660	2330	2010	1850	1390	1840	1660	1880	2210	1350	1820	
	REQUIREMENT	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Abitibi-Price Inc.
Thunder Bay Division
Thunder Bay

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Lake Superior (Thunder Bay) INDIRECT:

DESCRIPTION OF ACTIVITY: Logs are made into newsprint by the stone groundwood and sulphite pulping processes.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibre) and many organics from the pulping processes.

EFFLUENT TREATMENT: Clarifier and lagoons.

DISCHARGE TYPE: continuous surface

COMMENTS:

In compliance.
A new Control Order was issued on April 29, 1985. The company is required to meet specific BOD and TSS loadings in the total mill effluent discharged (BOD - 24.5 metric tonnes/day and TSS - 2.0 metric tonnes/day). In addition, the company is required to address effluent toxicity.
The final effluent was sampled six times during 1985 and tested by aerated 96-hr. rainbow trout bioassays (LC50 range of 10-40.1%). Three of the samples had an LC50 range of 31-40.1%; the remaining three had a lower LC50 range of 10-15.1%.

IMIS NUMBER: 0000860007 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

ABITIBI-PRICE - 0000860007
THUNDER BAY DIVISION

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		30030	30910	31300	30950	30390	30350	36100	32000	38700	41200	42000	43800	34800	
BIOCHEM. OXYGEN DEMAND	ACTUAL	18090	18000	17600	18200	17400	17500	15900	16600	18100	22800	24100	23400	19000	
	REQUIREMENT	24500	24500	24500	24500	24500	24500	24500	24500	24500	24500	24500	24500	24500	
PHOSPHOROUS TOTAL	ACTUAL	7.81	9.12	9.07	9.13	8.51	7.89	7.94	7.69	8.9	10.31	9.66	10.08	8.84	
	REQUIREMENT	30.03	30.91	31.3	30.95	30.39	30.35	36.1	32	38.7	41.2	42	43.8	34.8	
DISSOLVED SOLIDS	ACTUAL	52500	56600	57600	53700	53800	–	–	–	–	–	–	–	–	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	1280	1340	1360	1350	1150	1030	1310	1060	1310	1140	1320	1540	1260	
	REQUIREMENT	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: American Standard, Div of Wabco Standard Inc., Cambridge

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Speed River to Grand River

INDIRECT: 159 km to Lake Erie

DESCRIPTION OF ACTIVITY: Sinks, tubs, etc. are fabricated and enamelled.

EFFLUENT QUALITY: Contains heavy metals

EFFLUENT TREATMENT: pH adjustment, precipitation, flocculation and sedimentation
5 days a week, 230 days a year

DISCHARGE TYPE: continuous flow 7 am to 12 pm through a drain

COMMENTS:

Not in compliance.
Discharge quality consistently met limits for zinc and nickel but not for iron, suspended solids and pH. Company's optimization of its wastewater treatment has improved discharge quality to where it has reported compliance in the latter part of 1985 and through 1986. Monthly requirements are based on stream assimilation study and are expressed as loadings and not as concentrations.

IMIS NUMBER: 0001470004 SIC CODE: 3041 3042 MOE REGION: West Central DISTRICT: Cambridge

d0886

AMERICAN STANDARD DIVISION OF WABCO STANDARD INC - 0001470004
(FORMERLY SOLARWARE)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
(FLOW LIMIT 454)

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		365	365	441	365	365	365	365	365	365	365	365	365	371	
IRON TOTAL	ACTUAL	2.33	2.23	0.48	0.82	0.69	0.37	0.4	0.18	0.22	0.34	0.58	0.12	0.73	7
	REQUIREMENT	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
NICKEL TOTAL	ACTUAL	0.42	0.36	0.08	0.07	0.05	0.03	0.018	0.01	0.22	0.23	0.13	0.03	0.14	
	REQUIREMENT	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
pH		8	8.9	8.6	10.1	8.77	8.6	10.9	9.49	8.05	8.1	8.49	8.2	8.85	2
SUSPENDED SOLIDS	ACTUAL	13.9	22.2	4.41	5.47	3.65	3.65	12	3.65	3.65	3.65	3.65	3.64	6.96	3
	REQUIREMENT	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	
ZINC TOTAL	ACTUAL	0.03	0.05	0.03	0.02	0.08	0.11	0.007	0.004	0.02	0.02	0.08	0.02	0.039	
	REQUIREMENT	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Atlas Steel Company, Welland

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Welland River to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Secondary steel industry; recycle scrap metal for melting in electric furnace. Various grades of stainless steel made. Not an integrated mill. No coking operations or blast furnaces.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Contact and non-contact cooling water treated at two filtration plants. Pickling acids and rinses treated at waste acid solidification plant. Tertiary treatment consists of pH adjustment and heavy metal (chrome, lead) removal and filtration.

DISCHARGE TYPE: continuous

COMMENTS:

Target loads set by MOE industrial effluent concentration guidelines.
Substantial heavy metal loading reductions compared to previous years.
Flow measurements based on intake volume corrected for municipal sewer discharge.
Suspended Solids did not meet five monthly requirements.
Other parameters in compliance.

IMIS NUMBER: 0001610005 SIC CODE: 291 MOE REGION: West Central DISTRICT: Welland

d0886

ATLAS STEEL CO. - 0001610005

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		28395	28518	25628	21066	22649	21324	21212	30648	28986	22062	22062	23499	24671	
CADMIUM TOTAL	ACTUAL	_	0.57	0.513	0.423	0.453	0.426	0.424	0.061	0.058	0.044	0.044	0.047	0.278	
	REQUIREMENT	28.4	28.52	25.63	21.07	22.65	21.32	21.21	30.65	28.99	22.06	22.06	23.5	24.67	
CHROMIUM TOTAL	ACTUAL	_	1.711	2.503	9.48	5.65	5.11	1.485	1.532	1.449	0.652	0.961	4.665	3.42	
	REQUIREMENT	38.4	28.52	25.63	21.07	22.65	21.32	21.31	30.65	28.99	22.06	23.5	24.67	24.7	
SUSPENDED SOLIDS	ACTUAL	_	_	637	1000	593	2410	201	199	183	83.8	311	705	672	5
	REQUIREMENT	425.93	427.77	384.42	316	340	320	318	460	435	331	331	352	370	
OIL AND GREASE	ACTUAL	_	_	12.8	25.28	45.3	21.32	61.51	15.32	57.9	64	81.6	31.5	40.6	
	REQUIREMENT	425.93	427.77	384.42	316	340	320	318	460	495	331	331	352	370	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: BCL (formerly TCF) Cornwall

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Lawrence River INDIRECT:

DESCRIPTION OF ACTIVITY: Viscose supplied by Courtaulds is made into cellulose film.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: No external effluent treatment.

DISCHARGE TYPE: continuous through a submerged diffuser shared with Courtaulds

COMMENTS:

Control Order which will require improvements in the effluent discharged is nearly completed.
Total Acidity and BOD not in compliance.

IMIS NUMBER: SIC CODE: 183 MOE REGION: Southeast DISTRICT: Cornwall

d0886

BCL
CORNWALL

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		3350	3110	3060	3180	4060	4310	4540	5560	5820	4640	3920	3540	4090	
TOTAL ACIDITY	ACTUAL	7000	5000	5900	4900	3800	4600	4700	6100	7200	6400	6900	6700	5770	7
	REQUIREMENT	5200	4600	4700	5100	4900	5100	5500	6100	6000	5500	5900	5400	5330	
BIOCHEM. OXYGEN DEMAND	ACTUAL	830	660	760	560	730	750	670	1280	1860	1320	1110	1150	973	5
	REQUIREMENT	870	770	790	850	820	850	910	1010	1000	920	980	900	889	
SUSPENDED SOLIDS	ACTUAL	_	_	23	74	120	93	146	_	103	39	30	19	53.9	
	REQUIREMENT	870	770	790	850	820	850	910	1010	1000	920	980	900	753	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Beaver Wood Fibre Company, Thorold

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Beaverdams Creek to Twelve Mile Creek
INDIRECT: 13.3 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Paperboard is made from pulp and clean wastepaper.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Waste water recycling.

DISCHARGE TYPE: continuous through a submerged outfall

COMMENTS:

A section 126, EPA survey has been drafted. Target loads set by Pulp and Paper Committee consistent with best practicable technology.
BOD and Suspended Solids not in compliance.

IMIS NUMBER: 0001620004 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

BEAVER WOOD FIBRE CO. LTD. - 0001620004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		14300	14700	14400	14200	13900	13700	13600	14200	13600	14200	13600	13500	13990	
BIOCHEM OXYGEN DEMAND	ACTUAL	2700	3500	1800	2200	2800	3000	5000	5100	3300	2600	1800	1630	2950	8
	REQUIREMENT	2483	2483	2483	2483	2483	2483	2483	2483	2483	2483	2483	2483	2483	
DISSOLVED SOLIDS	ACTUAL	3900	4400	4700	4900	4500	4700	4400	3600	3700	3900	2700	2440	3990	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	1700	2900	800	2400	1200	1800	2400	2100	800	1300	1000	711	1590	9
	REQUIREMENT	904	904	904	904	904	904	904	904	904	904	904	904	904	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: B. F. Goodrich Niagara Falls

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: Welland River to Niagara River
INDIRECT:

DESCRIPTION OF ACTIVITY: Polyvinyl chloride resins are made from vinyl chloride monomer.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Conventional secondary sewage treatment plant followed by aerated lagoon followed by facultative lagoon.

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

Effluent quality not in compliance for BOD5 and Suspended Solids. Activated sludge process out of service. Modifications to treatment system required, Section 24 OWRA submitted.

IMIS NUMBER: 0000370304 SIC CODE: 373 MOE REGION: West Central DISTRICT: Welland

d0886

B.F. GOODRICH

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		966	1377	2740	1527	1547	1721	1644	1541	2000	1986	2971	2006	1836	
BIOCHEM. OXYGEN DEMAND	ACTUAL	_	48	74	30.5	21.8	46.5	38.4	2.64	6.78	7.43	94.9	38.2	37.2	7
	REQUIREMENT	14.5	20.7	41.1	22.9	23.2	25.8	24.7	23.1	30	23.78	44.6	30.1	27.5	
pH		6.2	6.3	6.5	6.2	6.1	6.3	6.2	6.3	6.3	6.4	6.1	6.2	6.26	
PHOSPHORUS TOTAL	ACTUAL	0.59	0.12	1.22	0	0.4	0.15	0.22	0.32	0.25	1.51	0.16	0	0.412	
	REQUIREMENT	0.966	1.38	2.74	1.53	1.55	1.72	1.64	1.54	2	1.99	2.97	2.01	1.88	
SUSPENDED SOLIDS	ACTUAL	8.31	33	64.4	3	10.8	11.9	9.58	2.04	4.72	19.4	41.6	104.2	26.1	3
	REQUIREMENT	14.5	20.7	41.1	23	23.3	25.8	24.6	23.1	30	29.9	44.6	30.2	28.1	
TOTAL SOLIDS	ACTUAL	547	589	525	57.8	173	535	525	39.9	39.3	605	2115	757	542	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
VINYL CHLORIDE MONOMER	ACTUAL	0.4	0.14	0.32	0.02	0.01	0.04	0	0	0	0	_	1.25	0.198	
	REQUIREMENT	0.97	1.38	2.74	1.53	1.55	1.72	1.64	1.54	2	1.99	_	2.01	1.84	
CHEMICAL OXYGEN DEMAND	ACTUAL	68.1	155	168	27.1	27.7	95.6	65.8	25.3	37	37.6	77.8	42.4	72.9	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
AMMONIUM FILTERED	ACTUAL	0.44	1.06	0.41	6.99	1.3	4.68	2.05	1.58	1.16	0.72	0.18	0.02	1.72	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Borg-Warner Chemicals
& PLANT LOCATION: Cobourg

INDUSTRIAL SECTOR: Organic Chemicals and Synthetic Fibres

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY: Formulation of ABS resins (plastics).

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary and secondary - extended aeration.

DISCHARGE TYPE: continuous through a submerged diffuser

COMMENTS:

This waste water treatment plant was under construction to upgrade primary section for most of 1985. This caused operating problems resulting in exceedances of Suspended Solids and Total Phosphorous. The construction was completed in early 1986.
Certificate of Approval 4-003-85-006 issued for plant, July 23, 1985. The revised effluent criteria are to be in force upon completion of construction (early '86).
The following table uses actual flow times the actual concentration for the " ACTUAL " figure, and the actual flow times the Certificate of Approval value or set concentrations for the " REQUIRED ".

IMIS NO.: 0000600007 SIC CODE: 377 MOE REGION: Central DISTRICT: Peterborough

d0886

BORG-WARNER CHEMICALS - 0000600007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1806	1697	1647	1906	2134	1925	1802	1906	1970	1729	1834	1315	1806	
CHEMICAL OXYGEN	ACTUAL	195	144	49	74	124	108	58	82	65	69	130	49	96	
DEMAND	REQUIREMENT	253	238	231	267	299	270	252	267	276	242	257	184	253	
BIOCHEM. OXYGEN	ACTUAL	36	21	7	13	41	27	7	16	5	10	16	21	18	
DEMAND	REQUIREMENT	54	51	49	57	64	58	54	57	59	52	55	39	54	
SUSPENDED	ACTUAL	105	76	13	32	24	19	18	27	128	31	71	241	65	5
SOLIDS	REQUIREMENT	54	51	49	57	64	58	54	57	59	52	55	39	54	
PHOSPHOROUS	ACTUAL	2.5	1	0.6	0.8	4.3	7.9	8.1	13.9	8.8	10.4	8.8	0.8	5.7	6
TOTAL	REQUIREMENT	4.5	4.2	4.1	4.8	5.3	4.8	4.5	4.8	4.9	4.3	4.6	3.3	4.5	
KJELDAHL	ACTUAL	54	65	61	61	36	44	7	19	11	14	5	6	32	
NITROGEN	REQUIREMENT	90	85	82	95	107	96	90	95	99	86	92	66	90	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Canadian Canners Ltd. St. Davids

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Four Mile Creek
INDIRECT: 12 km to Lake Ontario

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Facultative lagoon.

DISCHARGE TYPE: batch discharge usually in fall of year

COMMENTS:

Suspended Solids not in compliance.
Effluent quality met the Ministry target load which was set by the MOE industrial effluent concentration guidelines.
All loadings are gross loadings; net loadings met MOE guidelines.

IMIS NUMBER: 0001930007 SIC CODE: 102 MOE REGION: West Central DISTRICT: Welland

d0886

CANADIAN CANNERS LTD. - 0001930007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		-	-	-	-	1910	-	-	-	-	-	-	-		
BIOCHEM. OXYGEN DEMAND	ACTUAL	-	-	-	-	16.4	-	-	-	-	-	-	-		
	REQUIREMENT					28.7									
PHOSPHORUS TOTAL	ACTUAL	-	-	-	-	0.5	-	-	-	-	-	-	-		
	REQUIREMENT					1.91									
SUSPENDED SOLIDS	ACTUAL	-	-	-	-	38.9	-	-	-	-	-	-	-		1
	REQUIREMENT					28.7									

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME Canadian Industries Ltd. INDUSTRIAL SECTOR: Inorganic Chemicals

& PLANT LOCATION: Cornwall

RECEIVING WATERBODY: DIRECT: St. Lawrence River INDIRECT:

DESCRIPTION OF ACTIVITY: The mercury cell process is used to produce caustic and chlorine gas from salt

EFFLUENT QUALITY: All mercury-contaminated streams are collected and treated to remove mercury before discharge.

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous through a submerged diffuser shared with Domtar.

COMMENTS:

In compliance.
Meets Federal Fisheries Act regulations governing the amount of mercury discharged from chloro-alkali plants.

IMIS NUMBER: 0000390401 SIC CODE: 3782 MOE REGION: Southeast DISTRICT: Cornwall

d0886

CIL INC - 0000390401
CORNWALL

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		3076	3170	3170	3190	2670	3450	3340	3630	3580	2780	3078	2607	3140	
MERCURY TOTAL	ACTUAL	0.0294	0.0359	0.0328	0.0519	0.0641	0.0602	0.0505	0.0471	0.045	0.0316	0.0267	0.0351	0.0425	
	REQUIREMENT	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Canadian Industries Ltd.
Lambton Works
Courtright

INDUSTRIAL ACTIVITY: Inorganic Chemicals

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Sulphuric acid, phosphate ore and nitrogen are converted into several grades of fertilizer.

EFFLUENT QUALITY: Contains dissolved inorganic compounds such as phosphorous and ammonia

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous at shore

COMMENTS:

In compliance.

IMIS NUMBER: 0000390203 SIC CODE: 372 MOE REGION: Southwest DISTRICT: Sarnia

d0886

CANADIAN INDUSTRIES LTD - 0000390203

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		295000	295000	295000	295000	357000	382000	400000	432000	394000	340000	351000	345000	348000	
FLUORIDE TOTAL	ACTUAL	71	30	38	29.5	35.6	38.1	40.2	43.1	39.4	34	35.1	34.5	39.1	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-				
AMMONIA	ACTUAL	249	605	304	176	198	342	152	548	770	821	619	714	458	
NITROGEN	REQUIREMENT	2950	2950	2950	2950	3570	3820	4000	4320	3940	3400	3510	3450	3480	
NITRATES AND	ACTUAL	192	303	268	115	105	188	152	192	232	296	379	371	233	
NITRITES	REQUIREMENT	-	-	-	-	-	-	-	-	-	-				
PHOSPHORUS	ACTUAL	65	41	61	11.8	14.2	15.2	16.1	17.2	15.8	13.6	14	13.8	24.9	
TOTAL	REQUIRED	295	295	295	295	357	382	400	432	394	340	351	345	348	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Canadian Oxy-Durez
Dunlop
Fort Erie

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: Frenchmans Creek to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Manufactures phenol-formaldehyde type resins.

EFFLUENT QUALITY: Recycles waste water; cooling water discharge only.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

Not in compliance for phenols.
Indirect contamination (air emissions and material handling) of process waste waters.
Flow meter device out of service for May, July, October, November and December.
Phenol concentrations for these months are 0, 10, 17, 16, and 16 ppb: all below the 20 ppb limit.

IMIS NUMBER: 0001590009 SIC CODE: 3783 MOE REGION: West Central DISTRICT: Welland

d0886

CANADIAN OXY-DUREZ - 0001590009

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		142	200	125	171	_	149	_	162	41.1	_	_	_	141	
PHENOLS	ACTUAL	0.0043	0.0113	0.006	0.004	_	0.00032	_	0.00022	0.00073	_	_	_	0.0038	4
	REQUIREMENT	0.0028	0.004	0.0025	0.0034		0.003		0.0032	0.00082				0.0028	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Celanese Canada Ltd. Ernestown Twp.

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY: Textiles are made from polyester fibre produced by the reaction of ethylene glycol and terephthalic acid

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Secondary activated sludge.

DISCHARGE TYPE: Continuous

COMMENTS:

Effluent objectives set out in Certificate of Approval #4-006-86-006 dated june 16th, 1986 for BOD at 30 mg/L (loading 136 kg/day) and COD at 60 mg/L (272 kg/day).
BOD, COD and Suspended Solids not in compliance.

IMIS NUMBER: 0001730001 SIC CODE: 183 MOE REGION: Southeast DISTRICT: Kingston

d0886

CELANESE CANADA (MILLHAVEN) INC - 0001730001

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		10600	13050	13500	13500	17800	26300	13600	21600	_	_	13400	11400	15300	
BIOCHEM. OXYGEN	ACTUAL	328	612	781	242	605	315	95	410	_	_	229	386	400	9
DEMAND	REQUIREMENT	136	136	136	136	136	136	136	136			136	136	136	
CHEMICAL OXYGEN	ACTUAL	571	1080	1370	430	1050	550	180	710	_	450	401	671	679	10
DEMAND	REQUIREMENT	272	272	272	272	272	272	272	272		272	272	272	272	
SUSPENDED	ACTUAL	74	495	216	81	659	262	122	108	_	_	134	136	229	2
SOLIDS	REQUIREMENT	265	326	338	338	445	658	340	540			335	285	383	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Courtaulds Canada Ltd. Cornwall

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Lawrence River INDIRECT:

DESCRIPTION OF ACTIVITY: Dissolving sulphite pulp is reacted to form rayon

EFFLUENT QUALITY:

EFFLUENT TREATMENT: No external effluent treatment.

DISCHARGE TYPE: continuous through a diffuser shared with BCL

COMMENTS:

Out of compliance for BOD for existing requirements based on an expired Control Order.
Revised requirements will be set when new Control Order (near completion) is served.
Three final sewers (sulphide, acid and viscose) were sampled during 1985 and tested by aerated 96-hr. rainbow trout bioassays. The LC50's were 0.5, 2.2 and 28.3% respectively.
BOD and Suspended Solids not in compliance.

IMIS NUMBER: 0001900000 SIC CODE: 183 MOE REGION: Southeast DISTRICT: Cornwall

d0886

COURTAULDS - 0001900000
CORNWALL

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		5610	5490	6510	6080	4700	4470	4740	3980	4580	5020	5700	5730	5220	
TOTAL ACIDITY	ACTUAL	7200	5000	5900	4900	3800	4600	4700	6200	7200	6300	6900	6700	5760	
	REQUIREMENT	9300	9300	9300	9300	9300	9300	9300	9300	9300	9300	9300	9300	9300	
BIOCHEM. OXYGEN DEMAND	ACTUAL	1740	1270	1700	1730	1030	1160	1010	1670	1230	1060	1430	2200	1440	12
	REQUIREMENT	840	840	840	840	840	840	840	840	840	840	840	840	840	
CHEMICAL OXYGEN DEMAND *	ACTUAL	4230	3320	3780	3600	2740	2820	2900	4510	4210	3750	4030	4450	3700	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	200	300	280	340	250	280	350	480	380	370	430	490	346	12
	REQUIREMENT	625	625	625	625	625	625	625	625	625	625	625	625	625	

* Includes some from BCL

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Cyanamid Canada Inc. Niagara Falls

INDUSTRIAL SECTOR: Inorganic Chemicals

RECEIVING WATERBODY: DIRECT: Niagara River and Queenston-Chippewa Hydro Canal to Niagara River
INDIRECT:

DESCRIPTION OF ACTIVITY: Calcium carbide is produced by electric arc furnaces.

EFFLUENT QUALITY: Cooling water from furnace operation.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through two outfalls

COMMENTS:

In compliance.
Effluent quality met all MOE guidelines. Target Loads set by MOE industrial effluent concentration guidelines.
Company closed February and March due to strike.

IMIS NUMBER: 0001550003 SIC CODE: 3782 MOE REGION: West Central DISTRICT: Welland

d0886

CYANAMID CANADA INC - 0001550003

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		10800	_	_	32400	32400	32400	32400	32400	32400	32400	32400	32400	32400	
CYANIDE	ACTUAL	0.108	_	_	0.043	0.648	0.54	0.648	0.032	0.226	4.23	2.24	0.745	0.946	
	REQUIREMENT	21.6			64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	60.5	
pH		8.12	_	_	7.6	8.3	7.9	8.3	8	8.3	8	8.6	7.9		
PHOSPHORUS	ACTUAL	0	_	_	1.5	4.2	0	0.022	0	0.065	0.22	0.13	0	0.614	
TOTAL	REQUIREMENT	10.8			32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	30.2	
SUSPENDED	ACTUAL	0	_	_	0	130	108	86.4	73.4	62.6	322	190	0	97.2	
SOLIDS	REQUIREMENT	162			486	486	486	486	486	486	486	486	486	454	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Cyanamid Canada Inc.
Welland Plant
Niagara Falls

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: Thompson's Creek to Welland River to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Manufacturing or organic and inorganic nitrogen and phosphorous products.

EFFLUENT QUALITY: Process and cooling waters.

EFFLUENT TREATMENT: Wastewater discharges to product recovery system and then to open outfall.

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

BOD, Total Phosphorous, Suspended Solids and Ammonia Nitrogen not in compliance.
Loadings set by concentrations defined in Control Order.
Control Order expired March 1985.
Company has been reporting total ammonia - Control Order specifies free ammonia to be reported.
1986 results indicate compliance.
The final effluent was sampled 6 times during 1985 and tested by aerated 96-hr. rainbow trout bioassays.
Five of the samples were estimated to have been non-lethal.

IMIS NUMBER: 0001550102 SIC CODE: 372 MOE REGION: West Central DISTRICT: Welland

d0886

CYANAMID CANADA - 0001550102

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		21300	30100	21000	26600	14100	21200	23700	25300	18400	23900	25864	29600	25100	
pH		7.9	7.4	7.4	6.5	6.3	6.6	6.5	6.5	6.5	6.3	6.4	6.6		
BIOCHEM OXYGEN DEMAND	ACTUAL	-	-	-	-	-	-	71	25.3	18.4	718.3	129.3	0	160.05	1
	REQUIREMENT							355	379	276	359	388	444	376	
NITRATES	ACTUAL	768	1168	631	566	311	529	355	430	322	525	701	913	601.5	
	REQUIREMENT	1065	1506	1052	1330	706	1060	1183	1265	919	1194	2293	1482	1254	
TOTAL NITROGEN	ACTUAL	2840	4171	2271	2122	1017	1757	1185	1644	1132	1624	753	2146	1884	
	REQUIREMENT														
PHOSPHOROUS TOTAL	ACTUAL	34.1	41.89	31.55	26.56	12.71	14.8	21.28	17.7	11.02	23.87	25.86	23.7	23.75	3
	REQUIREMENT	21.3	30.1	21	26.6	14.1	21.2	23.9	25.3	18.4	23.9	45.9	29.6	25.1	
SUSPENDED SOLIDS	ACTUAL	663.6	150.6	0	0	0	0	0	0	367.4	0	0	148.1	110	2
	REQUIREMENT	213	301	210	266	141	212	237	253	276	239	459	296	251	
TOTAL SOLIDS	ACTUAL	15300	11200	7500	6760	3190	3390	1770	0	3638	5600	6880	5440		
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	8160	11020	7880	8842	3120	3390	2560	910	3270	2230	6200	13660	5993	
	REQUIREMENT														
KJELDAHL NITROGEN	ACTUAL	201	301	105	2.66	7.06	10.6	23.7	12.6	3.7	4.8	0	24.6	59	
	REQUIREMENT														
AMMONIA NITROGEN	ACTUAL	306.72	412.37	157.5	159.6	119.85	175.96	101.91	151.8	119.6	143.4	51.73	68.08	164.04	7
	REQUIREMENT	213	301	210	266	141	212	237	253	184	239	459	296	251	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Denison Mines Ltd. Elliot Lake

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Stollery Lake to Serpent River INDIRECT: 70 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Ore is mined and milled and separated into tailings and concentrates. Ammonia - based compounds are used in the recovery of uranium.

EFFLUENT QUALITY: Contains dissolved metal salts, ammonia compounds and radioactive material.

EFFLUENT TREATMENT: Lagoon - Two stage treatment consisting of barium chloride for Ra 226 precipitation and lime addition for pH adjustment, then to a polishing pond.

DISCHARGE TYPE: Continuous

COMMENTS:

The radioactivity limit is that set by Canada's Atomic Energy Control Board.
Discharge is in compliance with AECB license requirements.

IMIS NUMBER: 0001680008 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste.Marie

d0886

DENISON MINES LTD - 0001680008

CONCENTRATIONS IN MG/L
ALL FLOWS IN CUBIC METRES/DAY
RADIUM 226 UNITS IN BEQUERRELS/LITRE
pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		15200	20220	27700	37700	26500	19800	17600	19008	22030	17600	22030	10540	21300	
pH		9.5	9.3	8.9	7.9	7.2	7.2	7.9	8.4	7.9	8	8	8.5	7.23	
RADIUM 226 FILTERED	ACTUAL	0.068	0.1	0.085	0.115	0.081	0.074	0.085	0.059	0.07	0.078	0.089	0.063	0.081	
	REQUIREMENT	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	
RADIUM 226 TOTAL	ACTUAL	1.01	1.22	1.25	1.74	1.27	1.11	1.78	1.19	1.19	1.48	0.94	0.6	1.29	
	REQUIREMENT														
COPPER TOTAL	ACTUAL	-	-	-	0.38	-	-	0.18	-	-	0.18	-	-	-	
	REQUIREMENT				22.6			10.6			10.6				
NICKEL TOTAL	ACTUAL	-	-	-	0.75	-	-	0.35	-	-	0.7	-	-	-	
	REQUIREMENT				37.7			17.6			17.6				
SUSPENDED SOLIDS	ACTUAL	-	-	-	264	-	-	52.8	-	-	52.8	-	-	-	
	REQUIREMENT				566			264			264				
ZINC TOTAL	ACTUAL	-	-	-	1.13	-	-	0.18	-	-	0.18	-	-	-	
	REQUIREMENT				37.7			17.6			17.6				

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Dofasco Inc. Hamilton

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Hamilton Harbour
INDIRECT: Lake Ontario

DESCRIPTION OF ACTIVITY: All phases of iron & steel production including 46 Coke ovens, 4 Blast Furnaces, 2 B.O.F. shops and numerous rolling mills.

EFFLUENT QUALITY: Contains heavy metals and light organics.

EFFLUENT TREATMENT: Recycle, clarification, filtration, oil recovery and ion exchange.

DISCHARGE TYPE: continuous through five shore outfalls

COMMENTS:

Phenols and Suspended Solids not in compliance.
Control Order requirements for phenol control.
Suspended solids control completed early 1986.
Future reductions in suspended solids will be accomplished by eliminating overflows from the #1 Hot Mill Filtration Plant and #1 Melt Shop slurry sump with the possible installation of a Blast Furnace recirculating water system. Phenol will be reduced by improved online treatment time for the Zimpro/HCN tower blowdown thus reducing overflows to sewer and by diversion of the Biological Treatment Plant effluent to the Sanitary Sewer. An outfall from the #2 Hot Strip Mill was added in 1984.
Iron limits set at 10 mg/L.
All loadings as net data, arithmetic means.
Effluent quality met seven of nine target loads based on monthly averages.

IMIS NUMBER: 0001460005 SIC CODE: 291 MOE REGION: West Central DISTRICT: Hamilton

d0886

DOFASCO INC - 0001460005

ALL LOADS IN KG/DAY
ALL FLOWS IN 1000 CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		786	786	786	786	786	786	786	785	785	785	786	786	787000	
BIOCHEM. OXYGEN DEMAND	ACTUAL	1690	0*	725	0*	223	0*	0*	1640	197	2100	2230	778	596	
	REQUIREMENT	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	
CYANIDE	ACTUAL	9.8	31.8	18.9	11.5	17.5	30.8	15.6	11.6	15.1	28	30.5	32.5	21.1	
	REQUIREMENT	1570	1570	1570	1570	1570	1570	1570	1570	1570	1570	1570	1570	1570	
CHROMIUM TOTAL	ACTUAL	3.89	21	21.7	0	14.1	5.94	3.9	3.2	7.3	3.9	3.9	0	7.4	
	REQUIREMENT	787	787	787	787	787	787	787	787	787	787	787	787	787	
IRON TOTAL	ACTUAL	3400	5840	5020	2360	2980	2510	2540	3270	3180	2900	6890	4760	3800	
	REQUIREMENT	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	
AMMONIA NITROGEN	ACTUAL	429	1760	804	1150	602	83.5	276	309	306	527	421	426	592	
	REQUIREMENT	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	7870	
pH		–	–	–	–	–	–	–	8.02	7.96	7.6	7.82	7.84		
PHENOLS	ACTUAL	18.2	21.1	12.9	19.5	3.4	1.84	1.2	1.98	1.3	6.9	3.9	4.23	8.04	3
	REQUIREMENT	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	
PHOSPHORUS TOTAL	ACTUAL	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*	3	1.3	0.11	
	REQUIREMENT	787	787	787	787	787	787	787	787	787	787	787	787	787	
SUSPENDED SOLIDS	ACTUAL	9130	17200	15700	11600	15400	7520	9667	6415	14400	6180	17200	10800	11800	5
	REQUIREMENT	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	11800	
OIL AND GREASE	ACTUAL	1060	6920	0*	33.8	321	212	1080	259	129	0*	608	50	837	
	REQUIREMENT	11800	11806	–	–	–	–	–	–	–	–	–	–	–	
ZINC TOTAL	ACTUAL	92.4	105	104	49.8	62.4	64.3	29.3	81.4	68.1	113	593	–	124	
	REQUIREMENT	787	787	787	787	787	787	787	787	787	787	787		787	

* INTAKE EXCEEDED DISCHARGE

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Chemicals Ltd.
Sifto Salt Division
Goderich

INDUSTRIAL ACTIVITY: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Maitland River

INDIRECT: Lake Huron

DESCRIPTION OF ACTIVITY: Salt is mined and purified for use.

EFFLUENT QUALITY: Contains dissolved chlorides and sulphates of sodium, calcium etc.

EFFLUENT TREATMENT: Settling basins.

DISCHARGE TYPE: continuous

COMMENTS:

In 1985, company was employing best available technology.

Technical review of company discharge effluent was completed in 1985 and recommendations to change monitoring location to the company's property boundary in order to better assess the effluent were accepted. Change was implemented in January of 1986.

The Ministry is currently assessing this data with comparisons made to historical data.

IMIS NUMBER: 0000140707 SIC CODE: 079 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

DOMTAR CHEMICALS GROUP - 0000140707
SIFTO SALT DIVISION

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	_	10400	10500	10400	9390	10100	9590	9620	9770	10200	10000	
pH		_	_	_	8.35	8.4	8.3	8.3	8.3	8.2	8.4	_	3.1		
CHLORIDES	ACTUAL	_	_	_	58200	35100	_	30400	29500	_	_	_	30700	35600	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	_	_	_	91000	64600	42700	58800	58200	88200	146000	_	99200	81200	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	_	_	_	1810	1660	887	1250	1120	2360	3300	_	2560	1880	
	REQUIREMENT														
TOTAL SOLIDS	ACTUAL	_	_	_	92800	66300	43600	39200	_	_	_	_	101700	71600	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Construction Materials Ltd. (Allanburg) Thorold

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Old Welland Canal to Twelve Mile Creek
INDIRECT: 15.1 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Pulp is converted into construction paper.

EFFLUENT QUALITY: Cooling and waste water discharge.

EFFLUENT TREATMENT: Waste water is recycled.

DISCHARGE TYPE: continuous into a buried portion of the Old Welland Canal.

COMMENTS:

BOD not in compliance.
A Section 126 (EPA) survey scheduled for 1985 may not be required as the company has an agreement in principal with the Regional Municipality of Niagara to discharge to municipal sewer system.
The final effluent was sampled once during1985 and tested by an aerated 96-hr. rainbow trout bioassay.
The LC50 was estimated to have been equal to 7.5%.

IMIS NUMBER: 0000140400 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

Environment Ontario
Library
Resources Rd.
Etobicoke, Ontario M9P 3V6
Canada

DOMTAR CONSTRUCTION MATERIALS - 0000140400
THOROLD

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		608	582	699	725	672	705	641	713	751	779	798	751	702	
BIOCHEM. OXYGEN DEMAND	ACTUAL	742	560	659	921	654	1110	869	468	563	794	766	807	743	12
	REQUIREMENT	453	453	453	453	453	453	453	453	453	453	453	453	453	
SUSPENDED SOLIDS	ACTUAL	170	256	314	308	256	338	349	428	394	331	518	394	338	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Fine Papers CORNWALL

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: St. Lawrence River

INDIRECT:

DESCRIPTION OF ACTIVITY: Fine paper is made from logs and chips by the kraft pulping process and from purchased pulp.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary

DISCHARGE TYPE: Continuous through a submerged diffuser

COMMENTS:

A production-based total suspended solids limit was to become effective June 30, 1987. The company has asked for an eighteen month extension. This request must receive favourable review at a public meeting before an extension is granted.

IMIS NUMBER: 0000140301 SIC CODE: 271 MOE REGION: Southeast DISTRICT: Cornwall

d0886

DOMTAR FINE PAPERS - 0000140301
CORNWALL

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		125000	121000	123000	122000	127000	129000	102100	106300	105900	104400	102000	93800	113000	
BIOCHEM. OXYGEN DEMAND	ACTUAL	20700	20700	18500	21300	19800	17300	14500	15900	15000	12100	15600	13500	17100	
	REQUIRED	27700	27700	27700	27700	27700	27700	27700	27700	27700	27700	27700	27700	27700	
DISSOLVED SOLIDS	ACTUAL	132000	130000	130000	133000	132000	121000	100000	109000	108000	97900	103000	96600	116000	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	6400	9100	11100	11900	11100	10600	6700	7800	9200	8900	10500	9900	9430	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Fine Papers St. Catharines

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Old Welland Canal to Twelve Mile Creek
INDIRECT: 9.1 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Pulp and clean wastepaper is converted into paper products.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Recycle waste water and conventional primary treatment.

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

Effluent quality met Total Suspended Solids guideline but not Biochemical Oxygen Demand Limit. Company will continue flow reduction measures to reduce BOD loading.

IMIS NUMBER: 0000140509 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

DOMTAR FINE PAPERS - 0000140509

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		9110	8680	8780	9380	9210	9700	9370	9430	9130	8990	9710	9610	9274	
BIOCHEM. OXYGEN DEMAND	ACTUAL	650	690	680	510	520	440	370	420	340	390	390	488	490	11
	REQUIREMENT	354	354	354	354	354	354	354	354	354	354	354	354	354	
DISSOLVED SOLIDS	ACTUAL	2960	3040	2990	3330	2820	2670	2670	2810	2730	2750	3030	3740	2960	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUPENDED SOLIDS	ACTUAL	300	240	230	320	200	160	200	509	137	_	243	240	246	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Packaging Ltd. Red Rock

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Lake Superior (Nipigon Bay) INDIRECT:

DESCRIPTION OF ACTIVITY: Logs and chips are made into newsprint and corrugating medium by the groundwood and kraft processes.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibre) and organic compounds (some chlorinated) from the pulping process.

EFFLUENT TREATMENT: Clarifier.

DISCHARGE TYPE: continuous surface

COMMENTS:

In compliance.
A new Control Order was issued on Sept. 29, 1986. The Company is required to meet specific BOD and TSS loadings on the total mill effluent discharged. In addition, the Company is required to meet a toxicity requirement.
The final effluent was sampled nine times during 1985 and tested by aerated 96-hr. rainbow trout bioassays (LC50 range of 37.6- >100%). Six of the samples had an LC50 range of 68-80.6%; two were found to have been non-lethal; and the remaining one had a lower LC50 of 37.6%.

IMIS NUMBER: 0000140202 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

DOMTAR PACKAGING LTD - 0000140202
RED ROCK

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		95600	92800	91400	82800	93600	96300	93500	102000	98700	99600	91300	81600	93300	
BIOCHEM OXYGEN DEMAND	ACTUAL	15000	18500	20600	18700	15300	18900	15700	15900	17400	19600	21200	16700	17800	
	REQUIREMENT	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	
PHOSPHOROUS TOTAL	ACTUAL	25.8	23.2	21.94	20.6	23.9	20.2	10.29	15.3	28.6	15.9	0	13.9	18.3	
	REQUIREMENT	95.6	92.8	91.4	82.8	93.6	96.3	93.5	102	98.7	99.6	91.3	81.6	93.3	
DISSOLVED SOLIDS	ACTUAL	41300	51100	58200	54700	44500	50700	42300	45500	52700	54200	54100	44200	49500	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	4450	4590	4570	4410	3880	4400	3400	3500	4750	4740	4320	5230	4350	
	REQUIREMENT	5500	5500	5500	5500	5500	5500	5500	5500	5500	5500	5500	5500	5500	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Domtar Packaging Trenton

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Trent River

INDIRECT: Lake Ontario (Bay of Quinte)

TYPE OF ACTIVITY: Chips are made into pulp by a sodium carbonate cook; the pulp is formed into corrugating medium.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: None

DISCHARGE TYPE: Continuous

COMMENTS:

BOD and Suspended Solids not in compliance.
BOD requirement is based on an assumption for a calcium carbonate cook to fill a gap in the Federal Guideline for Pulp andPaper. A new paper machine was put on stream January 1986. Effluent requirements and a possible Control Order are under review.

IMIS NUMBER: 0000140608 SIC CODE: 271 MOE REGION: Southeast DISTRICT: Kingston

d0886

DOMTAR PACKAGING - 0000140608
TRENTON

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1790	1690	1620	1720	2046	1980	1990	2130	1880	2250	2120	2300	1960	
BIOCHEM. OXYGEN DEMAND	ACTUAL	4960	5044	4890	5920	6610	5940	4800	4950	3630	5590	5340	5860	5300	5
	REQUIREMENT	5523	5523	5523	5523	5523	5523	5523	5523	5523	5523	5523	5523	5523	
SUSPENDED SOLIDS	ACTUAL	588	544	451	398	650	451	308	384	621	710	806	1210	593	1
	REQUIREMENT	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Dow Chemical Canada Inc. Sarnia

INDUSTRIAL ACTIVITY: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Brine and feed from the petroleum refineries are used to make a wide range of chlorine related products.

EFFLUENT QUALITY: Contains a great variety of chlorinated hydrocarbons

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through seven outfalls

COMMENTS:

In compliance

IMIS NUMBER: 0000910109 SIC CODE: 373 MOE REGION: Southwest DISTRICT: Sarnia

d0886

DOW CHEMICAL CANADA INC - [illegible]

ALL LOADS IN KILOGRAM
SEP FLOWS IN [illegible] CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		305	763	763	763	752	743	787	787	812	753	812	919	746	
TOTAL ALKALINITY	ACTUAL	4380	360	490	520	70	340	240	480	30	0	0	0	576	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
pH		8.48	8.33	8.24	8.39	8.2	8.21	8.24	8.44	8.29	8.24	8.09	8.23		
PHENOLS	ACTUAL	2.53	1.49	3.23	5.05	1.96	2.05	3.16	3.14	2.78	–	2.49	2.43	2.76	
	REQUIREMENT	6.1	15.3	15.3	15.3	15	14.9	15.7	15.7	16.2		16.2	18.4	14.9	
SUSPENDED SOLIDS	ACTUAL	2790	2360	3520	2850	1730	1780	2200	2470	1140	1230	1520	1870	2120	
	REQUIRED	4580	11400	11400	11400	11300	11100	11800	11800	12200	11300	12200	12200	11200	
TOTAL CARBON	ACTUAL	1470	1160	1000	1020	740	410	510	560	420	500	650	930	781	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Dupont Canada Inc. Corunna

INDUSTRIAL ACTIVITY: Organic Chemical, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Feedstock (ethylene) from the petroleum refineries in Sarnia is used to make plastics.

EFFLUENT QUALITY: Contains organic compounds at trace levels

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous at shore

COMMENTS:

September monthly exceedance due to reported spill.
Company normally in compliance.

IMIS NUMBER: 0000080309 SIC CODE: 373 MOE REGION: Southwest DISTRICT: Sarnia

DU PONT CANADA INC - 0000080309
SARNIA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		39900	42300	42300	45200	36800	50900	51800	52100	51700	44400	41900	36600	44600	
PHENOLS	ACTUAL	<0.05	<0.05	<0.05	0.05	0.26	0.05	0.14	0.09	4.82	0.18	0.13	0.1	0.721	1
	REQUIREMENT	0.8	0.856	0.85	0.9	0.74	1	1.04	1.04	1.3	0.89	0.84	0.73	0.89	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Dupont Canada Inc. Maitland

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Lawrence River INDIRECT:

DESCRIPTION OF ACTIVITY: Tetra-ethyl lead is made from a lead-sodium alloy and ethyl chloride.

EFFLUENT QUALITY: Contains elemental and alkyl lead.

EFFLUENT TREATMENT: Settling

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance.
Plant closed down June 30, 1985. Decommissioning continued until February 1986.
Operated a total of 60 days after June 30, 1985.
Control point 0100 is no longer a monitoring station since blocked off as of May 1, 1986.

IMIS NUMBER: 0000080002 SIC CODE: 3783 MOE REGION: Southeast DISTRICT: Kingston

d0886

DUPONT CANADA INC - 0000080002
MAITLAND

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
CNTL PT 0100															
FLOW		8100	7600	8600	7200	9730	10200	7000	11300	9000	11400	5100	4200	8300	
LEAD TOTAL	ACTUAL	14.8	15.5	17.8	15.3	19.2	20.8	10.5	16.4	16.3	13	3.6	6	14.1	11
	REQUIREMENT	8.1	7.6	8.6	7.2	9.73	10.2	7	11.3	9	11.4	5.1	4.9	8.34	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Dupont Canada Inc. Maitland

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Lawrence River INDIRECT:

DESCRIPTION OF ACTIVITY: Chemicals are converted to precursors of nylon, zytel plastics, Lycra yarn, hydrogen peroxide and freon chlorocarbons.,

EFFLUENT QUALITY: Contains soluble and insoluble organics.

EFFLUENT TREATMENT: Activated sludge, pre-denitrification/nitrification.

DISCHARGE TYPE: Continuous

COMMENTS:

Suspended Solids not in compliance.
The effluent from this plant combines with effluent from the tetra-ethyl lead plant through a common outfall. (control point 0200)
The Suspended Solids objective is based on an old 15 mg/Litre guideline.
This will be reviewed under the MISA program.

IMIS NUMBER: 0000080002 SIC CODE: 3783 MOE REGION: Southeast DISTRICT: Kingston

d0886

DUPONT CANADA INC - 0000080002
MAITLAND

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
CNTL PT 0200															
FLOW		154000	169000	172000	167000	189000	209000	176000	231000	231000	213000	184000	176000	189000	
KJELDAHL NITROGEN	ACTUAL	610	1050	920	880	670	760	430	180	330	480	1150	1140	717	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
BIOCHEM OXYGEN	ACTUAL	1260	1370	1320	1260	1420	1530	1300	1720	1760	1600	2160	2280	1580	
DEMAND	REQUIREMENT	2330	2540	2580	2520	2840	3140	2640	3510	3450	3200	2760	2640	2850	
SUSPENDED	ACTUAL	2980	2310	2930	2910	2210	510	490	1620	2370	1980	3390	4880	2380	5
SOLIDS	REQUIREMENT	2330	2540	2580	2520	2840	3140	2640	3510	3450	3200	2760	2640	2850	
TOTAL CARBON	ACTUAL	1120	970	950	850	900	990	920	1120	1080	1120	1450	1739	1100	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: E. B. Eddy Forest Products Ltd. Espanola

INDUSTRIAL SECTOR: Pulp and Paper Mill

DESCRIPTION OF ACTIVITY: Logs and chips are converted by the kraft pulping process into paper and pulp

RECEIVING WATERBODY: DIRECT: Spanish River INDIRECT: 47 km. to Lake Huron (North Channel)

EFFLUENT QUALITY: Contains suspended solids (bark, wood and paper) and dissolved organic compounds.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous at shore

COMMENTS:

The final effluent was sampled 3 times during 1985 and tested by aerated 96-hr. rainbow trout bioassay. The samples were found to have been non-lethal. Effluent toxicity complies with Federal Fisheries Act regulations, more than 50% of fish survived in undiluted effluent.

IMIS NUMBER: 0000980003 SIC CODE(S): 271 MOE REGION: Northeast DISTRICT: Sudbury

d0886

E B EDDY FOREST PRODUCTS LTD - 0000980003
ESPANOLA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		93300	92700	99100	85700	104000	122000	104000	111080	109000	104000	101500	78300	100325	
BIOCHEM. OXYGEN DEMAND	ACTUAL	3990	3820	3590	3010	2690	2220	2150	2170	1840	3110	2390	1320	2690	
	REQUIREMENT														
pH		7.2	7.1	7.1	7.2	7	7.1	7	6.9	7.1	7	7.2	7.4		
SUSPENDED SOLIDS	ACTUAL	5440	6290	6780	6280	5190	4250	3600	4550	4050	5800	6350	4830	5284	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Eldorado Nuclear Ltd. Port Hope

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Lake Ontario INDIRECT:

DESCRIPTION OF ACTIVITY: Uranium is extracted from concentrates and converted into UF6

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: Two discharge pipes at surface.

COMMENTS:

In compliance.
No flow measurements available - estimates only.
Control point 03-EUF6 cooling water discharge not reported in second half as plant was "moth-balled".
Reported is the concentration of specific parameters from control point 02.

IMIS NUMBER: 0000820001 SIC CODE: 295 MOE REGION: Central DISTRICT: Peterborough

d0886

EldoRado NuclEar LTD - 0000820001
PORT HOPE

ALL VALUES IN MG/L
URANIUM IN MICROGRAMS/LITRE
RADIUM 226 UNITS IN BEQUERELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		NO RECORDED FLOWS													
RADIUM 226	ACTUAL	NO LONGER REPORTED													
	REQUIREMENT	0.37													
FLUORIDE	ACTUAL	0.26	0.38	0.34	0.24	0.33	_	0.38	0.42	0.76	0.45	0.82	0.42	0.44	
	REQUIREMENT	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	
AMMONIA NITROGEN	ACTUAL	0.32	0.1	0.26	0.15	0.1	0.1	0.1	0.19	0.14	0.13	0.12	0.1	0.15	
	REQUIREMENT	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
NITRATES AND NITRITES	ACTUAL	2	2	2.4	1.8	1.3	1.4	1.1	2.6	2	2.1	2.7	2.8	2	
	REQUIREMENT	25	25	25	25	25	25	25	25	25	25	25	25	25	
URANIUM	ACTUAL	_	0.13	0.08	0.05	0.03	0.03	0.04	0.09	0.04	0.02	0.05	0.06	0.06	
	REQUIREMENT		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Eldorado Nuclear Ltd. Port Granby

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Lake Ontario INDIRECT:

DESCRIPTION OF ACTIVITY: Leachate is collected and chemically treated.

EFFLUENT QUALITY: Chemical precipitation

EFFLUENT TREATMENT:

DISCHARGE TYPE: Batch Discharge

COMMENTS:

Arsenic not in compliance. pH not in compliance for March and May.
Decommissioning of the site plans are indefinite. Effluent quality limits are set in AECB operating licence. License limits compliance point changed effective July 1, 1985 to Interceptor effluent.
Only Radium and Arsenic concentrations in license limits - no loading criteria.
Other parameters are for treatment efficiency control only.

IMIS NUMBER: 0000820209 SIC CODE: 295 MOE REGION: Central DISTRICT: Peterborough

d0886

ELDORADO NUCLEAR LTD - 0000820203
PORT GRANBY

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM 226 UNITS IN BEQUERELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		69	120	204	150	69	53	170	196	212	163	385	218	167	
pH		7.89	8.51	9.67	9.46	9.65	9.37	8.31	8.37	8.56	8.59	8.69	7.93		2
RADIUM 226	ACTUAL	0.06	0.12	0.09	0.1	0.13	0.08	0.05	0.05	0.06	0.05	0.05	0.05	0.074	
	REQUIREMENT	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	
ARSENIC	ACTUAL	0.09	0.21	0.17	0.14	0.08	0.09	0.09	0.14	0.15	0.09	0.23	0.04	0.127	6 - 4 *
	REQUIREMENT	0.04	0.06	0.1	0.08	0.03	0.03	0.09	0.1	0.11	0.08	0.19	0.11	0.085	
BARIUM	ACTUAL	0.12	0.82	1.04	0.45	0.46	0.63							0.587	
	REQUIREMENT													0.11	
SULPHATES	ACTUAL	18.8	30.6	25.1	23.3	12.2	11.6								
	REQUIREMENT														

NOTE: THE COMPLIANCE POINT WAS CHANGED, EFFECTIVE JULY 1, 1985.

* first half - second half

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Eldorado Nuclear Ltd. Welcome Waste Site

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Lake Ontario INDIRECT:

DESCRIPTION OF ACTIVITY: Leachate is collected and chemically treated

EFFLUENT QUALITY: Chemical precipitation

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous submerged

COMMENTS:

Arsenic not in compliance.
Decommissioning of the site is indefinite. Effluent quality limits are set in AECB operating licence.
Collection ponds to be re-constructed in 1986 to improve arsenic treatment.
Radium units are concentrations, not loadings.

IMIS NUMBER: 0000820100 SIC CODE: 295 MOE REGION: Central DISTRICT: Peterborough

d0886

ELDORADO NUCLEAR LTD - 0000820100
WELCOME

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM 226 UNITS IN BEQUERRELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		163	207	492	223	148	138	113	113	97	136	48	196	206	
pH		7.43	7.48	7.37	7.6	7.61	7.91	8.15	8.15	7.85	7.92	7.67	7.27		
RADIUM 226	ACTUAL	0.04	0.04	0.04	0.04	0.07	0.04	0.04	0.04	0.04	0.04	0.11	0.1	0.0533	
	REQUIREMENT	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	
ARSENIC	ACTUAL	0.16	0.21	0.38	0.16	0.11	0.08	0.09	0.18	0.16	0.18	0.04	0.07	0.15	11
	REQUIREMENT	0.08	0.1	0.25	0.11	0.07	0.07	0.06	0.05	0.07	0.06	0.02	0.1	0.09	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Esso Chemicals Canada Ltd. Sarnia

INDUSTRIAL ACTIVITY: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF PROCESS: Polymerizes ethylene produced from natural gas and feed from petroleum refinery to produce polyethylene. Polymerizes vinyl chloride monomer to produce polyvinyl chloride. Fractionates feed from refinery to produce benzene, toluene and xylene.

EFFLUENT QUALITY: Contains insoluble and soluble hydrocarbons

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through an extended outfall

COMMENTS:

June suspended solids exceedance due to pond clean out.
Company normally in compliance.

IMIS NUMBER: 0000070201 SIC CODE: 369 MOE REGION: Southwest DISTRICT: Sarnia

d0886

ESSO CHEMICALS CANADA LTD - 0000070201
SARNIA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		21499	24869	25849	28579	31228	31320	30720	33390	33840	34270	33190	27390	29679	
pH		7.7	7.7	7.6	7.6	7.5	7.4	7.5	7.4	7.4	7.6	7.3	7.3	7.5	
SUSPENDED SOLIDS	ACTUAL	185	313	215	417	440	588	402	351	332	291	46	0	298	1
	REQUIREMENT	322	373	388	429	468	470	461	501	508	514	498	411	455	
PHENOLICS	ACTUAL	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.7	0.6	0.2	0.225	
	REQUIREMENT	0.43	0.5	0.52	0.572	0.625	0.626	0.614	0.668	0.677	0.7	0.664	0.548	0.594	
OIL AND GREASE	ACTUAL	19.3	12.4	23.3	25.7	53.1	21.9	39.9	27	0	6.85	49.8	43.8	26.9	
	REQUIREMENT	322	373	388	429	468	470	461	501	508	514	498	411	455	
AMMONIA NITROGEN	ACTUAL	6.4	0	24	0	0	0	0	6.7	0	3.4	13.2	30.1	6.98	
	REQUIREMENT	215	249	258	286	312	313	307	334	338	343	332	274	297	
TOTAL ORGANIC CARBON	ACTUAL	210	412	301	267	160	0	176	83	155	84	200	72	177	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	433	1692	896	7019	1425	1360	2070	1728	581	560	1404	1905	1756	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Esso Petroleum Canada Sarnia

INDUSTRIAL ACTIVITY: Petroleum Refining

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Crude oil is converted into a wide range of petroleum products.

EFFLUENT QUALITY: Contains insolube and soluble compounds from crude oil at trace levels

EFFLUENT TREATMENT: Once through cooling water receives gravity separation prior to discharge to the St. Clair River. Process and essentially all storm water receives both primary and secondary (biological) treatment before discharge.

DISCHARGE TYPE: continuous through three outfalls

COMMENTS:

In compliance.

IMIS NUMBER: 0000070102 SIC CODE: 3651 3652 MOE REGION: Southwest DISTRICT: Sarnia

d0886

ESSO PETROLEUM CANADA - 0000070102
SARNIA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		212000	200000	213000	212000	210000	209000	210000	210000	210000	211000	211000	207000	210000	
AMMONIA NITROGEN	ACTUAL	19.5	2.4	6	96	80.5	42.1	31.3	3.54	5.4	1.87	1.9	6	24.7	
	REQUIREMENT	2120	2000	2130	2120	2100	2090	2100	2100	2100	2110	2110	2070	2100	
PHENOLS	ACTUAL	0.4	3.4	0.7	0.7	0.4	0.9	0.5	0.4	0.3	0.2	0.14	0.3	0.7	
	REQUIREMENT	4.24	4.2	4.26	4.24	4.2	4.18	4.2	4.2	4.2	4.22	4.22	4.14	4.2	
DISSOLVED SOLIDS	ACTUAL	10400	5300	5800	9750	3820	6888	20240	14672	7380	8570	7000	7500	8943	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
SUSPENDED SOLIDS	ACTUAL	218	772	0*	253	1500	240	255	272	117	975	0	0	418	
	REQUIREMENT	3180	3150	3195	3180	3150	3135	3150	3150	3150	3165	3165	3105	3150	
OIL AND GREASE	ACTUAL	121	138	113	161	233	176	98	45	9	11	107	127	113	
	REQUIREMENT	2120	2000	2130	2120	2100	2090	2100	2100	2100	2110	2110	2070	2100	
SULPHIDE	ACTUAL	0	0	0	0	0	0	1.73	0	0	0	0	0	0.14	
	REQUIREMENT														
TOTAL CARBON	ACTUAL	0	0	0	0	0	146		0	954	53	126	24	118.4	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	

* INTAKE EXCEEDED DISCHARGE

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ethyl Canada Inc., Corunna

INDUSTRIAL ACTIVITY: Organic Chemicals, Synthetic Fibres

RECEIIING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Tetraethyl lead is made from a lead-sodium alloy and ethyl chloride.

EFFLUENT QUALITY: Contains organic lead

EFFLUENT TREATMENT: Physical-chemical.

DISCHARGE TYPE: continuous through an extended outfall

COMMENTS:

October and December exceedances due to difficulties with treatment systems (pH control). Improvements in place during 1986. No exceedances to date in 1986.

IMIS NUMBER: 0000120006 SIC CODE: 374 MOE REGION: Southwest DISTRICT: Sarnia

d0886

ETHYL CANADA INC - 0000120006

ALL LOADS IN KG/DAY
ALL FLOW IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		18500	16500	17600	19400	28200	32300	37400	39400	39500	28800	22800	16700	26400	
LEAD	ACTUAL	17.8	9.4	7.74	13.4	20.9	32	28.5	30.3	26.3	44.6	15.3	26.6	22.7	2
	REQUIREMENT	18.5	16.5	17.6	19.4	28.2	32.3	37.4	39.4	39.6	28.8	22.8	16.7	26.4	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Falconbridge Ltd. Falconbridge,

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Coniston Creek to Wanapitei River INDIRECT: 80 km. to Lake Huron (Georgian Bay)

DESCRIPTION OF ACTIVITY: Converts ore into metallic matte.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates.

EFFLUENT TREATMENT: Neutralization with Calcium Oxide (quicklime).

DISCHARGE TYPE: Continuous decant flow from main tailings area

COMMENTS:

Total Iron not in compliance for March.
High metal values caused by abnormal flow from high spring runoff.

IMIS NUMBER: 0001700004 SIC CODE(S): 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

FALCONBRIDGE LTD - 0001700004
FALCONBRIDGE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		9820	17900	33040	44500	20950	27300	23900	31400	19600	28000	26900	31000	26200	
COPPER TOTAL	ACTUAL	0.39	0.18	1.98	1.3	0.42	0.27	0.24	0.63	0.4	0.84	_	0.62	0.66	
	REQUIREMENT														
IRON TOTAL	ACTUAL	0.1	4.8	48.9	44	13	19.6	6.45	5.34	10.8	15.1	13.4	29.8	17.6	1
	REQUIREMENT	9.82	17.9	33	44.5	21	27.3	23.9	31.4	19.6	28	26.9	31	26.2	
NICKEL TOTAL	ACTUAL	16	24.7	34	35.6	12.8	10.1	10.8	13.2	8.6	18.5	24.2	31	20	
	REQUIREMENT														
pH		7.1	7	6.9	6.7	6.8	7.1	7.2	7.14	7.05	7.3	7.05	7		
SUSPENDED SOLIDS	ACTUAL	110	186	264	383	260	262	196	145	220	140	124	_	208	
	REQUIREMENT	147	269	496	668	314	410	359	471	294	420	404		393	
SULPHATES TOTAL	ACTUAL	5017	10200	17200	22400	7390	12200	10800	16800	7910	11900	11700	13100	12200	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Falconbridge Ltd. Moose Lake Wastewater Treatment System

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Moose Lk. to Onaping R. to Vermillion R. to Spanish R.

INDIRECT: 125 km. to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Extraction from ore into Nickel, Copper and Cobalt conentrates which are shipped to smelter.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates.

EFFLUENT TREATMENT: Neutralization with limestone slurry prior to discharge.

DISCHARGE TYPE: Continuous

COMMENTS:

February Suspended Solids not in compliance.
Exceedance due to high spring runoff.

IMIS NUMBER: 0001700301 SIC CODE(S): 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

FALCONBRIDGE LTD - 0001703001
MOOSE LAKE WWTS

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		46782	29791	36830	84589	71741	22088	53301	52713	27399	67790	29537	44958	47293	
COPPER TOTAL	ACTUAL	1.9	4.06	1.1	1.7	1.43	0.22	0.71	1.6	0.34	0.02	4.08	0.89	1.5	
	REQUIREMENT	46.782	29.791	36.83	84.589	71.741	22.088	53.301	52.7	27.399	67.79	29.537	44.958	47.29	
IRON TOTAL	ACTUAL	65	455	92.1	293	12.6	3.1	10.1	2.1	4.7	7.4	23.1	50.51	84.9	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	55.2	39.9	51.9	95.9	93	27.6	71.4	88	27.8	47	133	55.6	65.5	
	REQUIREMENT														
pH		5.9	6	6.4	6.3	6.4	7	6.9	6.5	6.3	_	6.6	6.3		
SUSPENDED SOLIDS	ACTUAL	271	596	162	389	187	13.3	139	179	47.4	54.8	204	142	199	1
	REQUIREMENT	701.73	446.865	552.45	1270	1076	332	800	791	254	1016.85	443.055	443	709.38	
SULPHATES TOTAL	ACTUAL	28116	91269	24160	51889	21379	9211	5958	29730	9634	15809	39216	18342	30393	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Falconbridge Ltd.
Onaping Mine
Onaping Falls

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Onaping River to Vermillion River to Spanish River

INDIRECT: 125 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Ore is mined and separated into tailings and concentrates.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates.

EFFLUENT TREATMENT: Neutralization with Sodium Hydroxide.

DISCHARGE TYPE: Intermittent (7 months) - mine water is decanted (overflow) after treatment.

COMMENTS:

Nickel, Suspended Solids and pH not in compliance.
Low flow in spring and winter. Company will be approached to provide solution.

IMIS NUMBER: 0001700103 SIC CODE(S): 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

FALCONBRIDGE LTD - 0001701003
ONAPING MINE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		118	217	164	1227	164	164	262	262	262	36	76	458	284	
COPPER TOTAL	ACTUAL	0.004	0.004	0.002	0.01	0.003	0.002	0.009	0.01	0.005	0.007	0.02	0.005	0.0068	
	REQUIREMENT														
IRON TOTAL	ACTUAL	0.02	0.07	0.02	0.16	0.14	0.01	0.02	0.04	0.03	0.05	0.08	0.06	0.058	
	REQUIREMENT	0.19	0.22	0.17	1.23	0.16	0.16	0.26	0.26	0.26	0.036	0.076	0.46	0.284	
NICKEL TOTAL	ACTUAL	0.17	0.08	0.03	3.51	0.02	0.02	0.02	0.04	0.1	0.22	1.79	0.55	0.55	5
	REQUIREMENT														
pH		8.4	10	9.9	7.4	9.3	8.5	9.1	8.7	8.6	8.7	7.7	8.5		2
SUSPENDED SOLIDS	ACTUAL	60	4.52	1.54	18.4	_	0.56	1.36	2.4	1.3	1.94	7.3	1.56	9.17	3
	REQUIREMENT	1.77	3.26	2.46	18.5	2.46	2.46	3.93	3.93	3.93	0.54	1.14	6.87	4.26	
SULPHATES TOTAL	ACTUAL	60	76.7	47.9	540	67.4	84.5	128	149	144	199	387	241	177	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Fiberglas Canada Inc. Sarnia

INDUSTRIAL ACTIVITY: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Cole Drain

INDIRECT: St. Clair River

DESCRIPTION OF ACTIVITY: insulation is produced from silicate sands

EFFLUENT QUALITY: Contains trace processing agents such as phenols

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

Meets annual compliance. Two monthly exceedances of phenolics due to process water leaks.

IMIS NUMBER: d0886

SIC CODE: 3562

MOE REGION: Southwest

DISTRICT: Sarnia

FIBERGLAS CANADA INC.
SARNIA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		7450	6820	7630	7580	7720	8800	7800	6700	7680	7300	6320	6790	7370	
pH		8.2	8.7	8.6	8.6	8.7	8.2	8.5	8.4	8.5	8.2	8.2	8.4		
PHENOLICS	ACTUAL	0.1	0.25	0.1	0.32	0.05	0.02	0.03	0.02	0.02	0.07	0.05	0.04	0.09	2
	REQUIREMENT	0.15	0.14	0.15	0.15	0.15	0.18	0.16	0.13	0.15	0.15	0.12	0.14	0.15	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Fleet Manufacturing Company Ltd.
Gilmore
Fort Erie

INDUSTRIAL SECTOR: Metals, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Frenchmans Creek to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Fabricator of aircraft parts

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Wastewater treatment consists of pH adjustment and heavy metal removal to sanitary sewer.

DISCHARGE TYPE: continuous

COMMENTS:

Company has connected process waste water to municipal sewer system.

IMIS NUMBER: 0001570001 SIC CODE: 321 MOE REGION: West Central DISTRICT: Welland

d0886

FIBET MFG CO. LTD. - 0001570001

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		966	966	966	966	966	966	966	966	966	966	1030	_	972	
CADMIUM TOTAL	ACTUAL	0.685	0.696	_	_	_	_	_	_	_	_	0.005	_	0.462	
	REQUIREMENT	0.97	0.97									1.03		0.98	
CHROMIUM TOTAL	ACTUAL	1.26	2.29	0.799	0.931	4.11	0.193	0.608	1.07	1.81	11.3	0.164	_	2.23	6
	REQUIREMENT	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.03		0.98	
LEAD TOTAL	ACTUAL	_	_	_	_	0.219	0.316	0.549	0.966	1.81	0.193	0.103	_	0.594	
	REQUIREMENT														
pH		8.2	_	_	_	_	_	_	_	_	7.1	7.27	_	7.52	
SUSPENDED SOLIDS	ACTUAL	13.02	13.3	6.07	32.9	11.1	6.09	4.72	32.3	10.9	15.07	4.36	_	13.6	3
	REQUIREMENT	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.5	14.5	15.5		14.6	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ford Motor Company Niagara Falls

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Welland River to Niagara River
INDIRECT:

DESCRIPTION OF ACTIVITY: Manufacturing automotive glass.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Conventional secondary sewage treatment plant and oil water separation.

DISCHARGE TYPE: continuous (treated sanitary and contact cooling water)

COMMENTS:

Effluent quality not in compliance with phosphorous loading. Suspended Solids not in compliance for January. Voluntary program commenced in 1986.

IMIS NUMBER: 0000020503 SIC CODE: 325 MOE REGION: West Central DISTRICT: Welland

d0886

FORD MOTOR CO. - 0000020503
NIAGARA FALLS

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2728	2728	2728	2728	2728	2728	2728	2728	8550	8550	8550	8550	4670	
BIOCHEM. OXYGEN DEMAND	ACTUAL	16.9	7.4	15	3.3	6.3	4.9	5.7	2.5	18.8	24.8	87.2	34.2	18.9	
	REQUIREMENT	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	128	128	128	128	70	
pH		_	_	_	_	_	_	_	7.7	_	7.9	_	_		
IRON TOTAL	ACTUAL	6.85	59.8	3.11	0.65	_	2.3	3.3	_	0	_	_	_	10.57	
	REQUIREMENT														
AMMONIUM FILTERED	ACTUAL	4.1	11.5	_	52.6	_	1.3	1.9	0.55	0.64	1.07	0.35	0.55	7.46	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	62.5	33.5	35.7	26.7	15.5	40.3	20.2	14.2	0	79.5	35.5	121	40.4	1
	REQUIREMENT	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	128	128	128	128	69.9	
PHOSPHOROUS	ACTUAL	5.6	5.7	5.7	5.9	_	9.5	2.38	3.93	11.2	2.88	2.64	4.9	5.5	7
	REQUIREMENT	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
KJELDAHL NITROGEN	ACTUAL	12.3	18.8	_	57.3	_	4.4	6	2.6	9.4	11.12	2.4	4.3	12.86	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: FORD Motor Company
& PLANT LOCATION: Oakville

INDUSTRIAL SECTOR: Metal, Plasic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY: Automobile and truck assembly plant

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary treatment with settling lagoon.

DISCHARGE TYPE: Continuous

COMMENTS:

BOD, Phenols (Sept.) and Suspended Solids not in compliance.
Company is negotiating with the region of Halton to discharge treated effluent to sanitary sewer. Ford has advised MOE that they are prepared to install a new BOD treatment plant.
A decision whether to buy Region of Halton treatment service or to include a biological section in their current building plans will be made before January 1987.

IMIS NO.: 0000020008 SIC CODE: 323 MOE REGION: Central DISTRICT: Halton-Peel

d0886n2486

FORD MOTOR CO OF CANADA LTD - 0000020008
OAKVILLE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		12800	12800	13300	14900	16100	15400	13800	17800	16000	13600	13500	10600	14200	
BIOCHEM. OXYGEN DEMAND	ACTUAL	448	320	264	414	547	513	125	427	396	312	414	775	413	11
	REQUIREMENT	192	192	200	223	242	231	207	267	240	204	203	159	213	
CHROMIUM TOTAL	ACTUAL	0.41	0.31	0.43	0.03	0.2	0.29	0.03	0.25	0.26	0.26	0.77	0.42	0.3	
	REQUIREMENT	12.8	12.8	13.3	14.9	15.4	15.4	13.8	17.8	16.1	13.6	13.5	10.6	11.9	
pH		7.9	7.8	7.7	7.8	7.8	7.6	7.6	7.5	7.8	7.9	7.5	7.8		
PHENOLS	ACTUAL	0.13	0.16	0.07	0.14	0.26	0.24	0.07	0.22	0.34	0.25	0.24	0.16	0.19	1
	REQUIREMENT	0.26	0.26	0.27	0.3	0.32	0.31	0.28	0.36	0.32	0.27	0.27	0.21	0.24	
PHOSPHOROUS TOTAL	ACTUAL	2.1	3.5	1.1	1.6	2.9	0.8	6.3	6.4	4.3	6.3	5.8	6.8	3.99	
	REQUIREMENT	12.8	12.8	13.3	14.9	16.1	15.4	13.8	17.8	16.1	13.6	13.5	10.6	11.8	
SUSPENDED SOLIDS	ACTUAL	179	144	119	138	242	258	218	551	288	238	293	130	233	6
	REQUIREMENT	192	192	200	223	242	231	207	267	240	204	203	159	213	
OIL AND GREASE	ACTUAL	33.9	24.5	17.2	6.3	27.8	47.9	12.3	89.1	19.1	35.6	27	6.5	28.9	
	REQUIREMENT	192	192	200	223	242	231	207	267	240	204	203	159	213	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ford Motor Company Ltd.
Assembly Plant
St. Thomas

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Dodd Creek to Kettle Creek

INDIRECT: 38 Km to Lake Erie

DESCRIPTION OF ACTIVITY: Auto painting and assembly.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Domestic - Aerated activated sludge plant.
Industrial - Chemical batch followed by biological treatment and rapid sand filtration.

DISCHARGE TYPE: Intermittent through an on-shore outfall; weekend flow and pollutants drop off.

COMMENTS:

Suspended Solids not in compliance for February and April.
Plant is installing an effluent flow measurement device.
Will be collecting composite samples at point for IMIS data in 1987.
Effluent considered quite acceptable and generally meeting MOE requirements.

IMIS NUMBER: 0000020404 SIC CODE: 323 MOE REGION: Southwest DISTRICT: London

d0886

FORD MOTOR CO. OF CANADA LTD. - 0000020404
ST. THOMAS

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		4930	5640	5330	5440	4460	6760	4320	6730	6650	6560	5900	4660	5680	
BIOCHEM. OXYGEN DEMAND	ACTUAL	21.7	36.6	37.3	40.8	20	20.1	9.93	27.6	17.3	26.2	31.9	26.6	26.9	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
CHEMICAL OXYGEN DEMAND	ACTUAL	207	332	309	195	141	209	130	191	178	180	165	176	206	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
CHROMIUM TOTAL	ACTUAL	0.235	0.282	0.266	0.26	0.178	0.338	0.216	0.336	0.266	0.262	0.295	0.233	0.264	
	REQUIREMENT		–	–	–	–	–	–	–	–	–	–	–	5.66	
SUSPENDED SOLIDS	ACTUAL	21.6	111	40	87.6	49.5	60.8	25	50.4	23.9	44	62	35	51.8	2
	REQUIREMENT	–	84.6	80	81.6	66.9	101	64.8	100.95	99.8	98.4	88.5	69.9	85.2	
pH		7.3	7.5	7.5	7.5	8	7.8	8.1	7.7	7.9	8.2	7.4	7.5		
TOTAL SOLIDS	ACTUAL	1650	1850	1570	1860	1500	2008	1470	2090	2040	2000	1700	1690	1820	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
OIL AND GREASE	ACTUAL	5.88	7.11	4.8	1.41	4.01	6.55	4.74	12.8	5.99	3.28	8.86	6.53	6.05	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
ZINC TOTAL	ACTUAL	0.279	0.395	0.373	0.342	0.222	0.338	0.177	0.268	0.266	0.46	0.413	0.326	0.33	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
PHENOLICS	ACTUAL	0.0137	0.0212	0.026	0.09	0.062	0.076	0.043	0.067	0.093	0.066	0.094	0.049	0.014	
	REQUIREMENT	–	0.109	0.107	0.109	–	–	–	–	0.133	–	0.118	0.093	0.114	
PHOSPHATES	ACTUAL	8.67	11.6	4.27	7.19	8.47	17.2	3.45	4.7	10.64	6.04	7.26	4.94	8.14	
	REQUIREMENT	–													

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ford Motor Co. of Canada Ltd. Windsor

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Detroit River

INDIRECT: Lake Erie

DESCRIPTION OF ACTIVITY: Engine block and parts are cast in the iron foundry; parts are machined and assembled into engines and transmissions.

EFFLUENT QUALITY: Contains iron, phenol and suspended solids.

EFFLUENT TREATMENT: Chemical coagulation, oil removal and sedimentation.

DISCHARGE TYPE: continuous six days a week through a submerged outfall

COMMENTS:

Phenols and Suspended Solids not in compliance.
Control order for phenol, suspended solids and iron is being prepared.
The final effluent was sampled 2 times during 1985 and tested by aerated 96-hr. rainbow trout bioassays.
The samples were found to have been non-lethal.

IMIS NUMBER: 0000020107 SIC CODE: 291 325 MOE REGION: Southwest DISTRICT: Windsor

d0886

FORD MOTOR CO. OF CANADA LTD. - 0000020107
WINDSOR

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		90800	90600	89000	90000	88900	91200	86800	89300	89300	86300	88900	87200	89000	
CHEM OX DEMAND	ACTUAL	1632	1227	1582	1870	1010	814	511	1260	887	949	950	879	1130	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
IRON TOTAL	ACTUAL	309	288	276	273	249	238	225	214	196	207	213	198	224	
	REQUIREMENT	1540	1540	1513	1350	1511	1550	1476	1518	1518	1467	1511	1482	1518	
FLUORIDE	ACTUAL	386	380	374	372	368	379	329	324	326	336	364	357	358	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
pH		7.91	7.9	7.9	7.85	7.9	7.86	7.76	7.4	7.4	7.5	7.3	7.4		
PHENOLS	ACTUAL	44.1	46.8	44.5	29.9	26.8	30.9	12.1	13.3	10.7	28.1	26	27	28.3	12
	REQUIREMENT	1.82	1.81	1.78	1.8	1.8	1.82	1.74	1.79	1.79	1.73	1.78	1.74	1.54	
SUSPENDED SOLIDS	ACTUAL	4290	3022	2960	2920	2910	2810	3830	4710	5620	4380	2810	2400	3555	12
	REQUIREMENT	1362	1359	1335	1350	1334	1368	1302	1340	1340	1295	1334	1308	1336	
TOTAL SOLIDS	ACTUAL	15200	11900	11500	12000	11800	12000	9900	13600	13700	12500	8900	9800	11900	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
OIL AND GREASE	ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	
	REQUIREMENT	1362	1359	1335	1330	1334	1368	1302	1340	1340	1295	1334	1308	1336	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Fraser Inc. Thorold

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Twelve Mile Creek
INDIRECT: 12 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Fine paper is made from pulp and from deinked ledger paper.

EFFLUENT QUALITY;

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through an outfall

COMMENTS:

Effluent quality met Ministry Total Suspended Solids annual requirement, but exceeded one monthly (Jan.) limit. The effluent did not meet the Biochemical Oxygen Demand limit.

IMIS NUMBER: 0000940007 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

FRASER INC. - 0000940007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		24500	24500	24200	24900	25300	25900	25100	23900	22800	23300	25800	25500	24800	
BIOCHEM. OXYGEN DEMAND	ACTUAL	2500	2200	2500	2140	2200	1990	2000	2100	1700	2170	1800	1800	2091	9
	REQUIREMENT	1810	1810	1810	1810	1810	1810	1810	1810	1810	1810	1810	1810	1810	
SUSPENDED SOLIDS	ACTUAL	1600	1200	1100	650	560	860	1300	700	1300	900	1000	1000	1014	1
	REQUIREMENT	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
DISSOLVED SOLIDS	ACTUAL	7600	8200	7500	8600	8590	9330	6000	7500	5200	4400	6600	6700	7190	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: General Chemical Canada Ltd (formerly: Allied Chemical Canada Inc.) Amherstburg.

INDUSTRIAL SECTOR: Inorganic Chemicals

RECEIVING WATERBODY: DIRECT: Detroit River

INDIRECT: Lake Erie

DESCRIPTION OF ACTIVITY: Soda ash (sodium carbonate) is made from table salt (sodium chloride).

EFFLUENT QUALITY: Contains inorganic salts (chlorides, carbonates).

EFFLUENT TREATMENT: By-product recovery and sedimentation.

DISCHARGE TYPE: continuous

COMMENTS:

pH not in compliance.
Company met all 12 monthly requirements for chlorides, ammonia nitrogen and suspended solids.
Significance of high pH in the receiving water is to be assessed by M.O.E. staff.
The final effluent was sampled 4 times during 1985 and tested by aerated 96-hr. rainbow trout bioassay.
Two of the samples had LC50's of 7 and 8.7%. The remaining two samples were found to have been non-lethal (>100%).

IMIS NUMBER: 0000010009 SIC CODE: 378 3782 MOE REGION: Southwest DISTRICT: Windsor

d0886

GENERAL CHEMICAL CANADA LTD. - 0000010009
AMHERSTBURG PLANT

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		106000	111000	125000	142000	155000	159000	161000	170000	169000	148000	134000	139000	143000	
CHLORIDES	ACTUAL	837000	829000	1170000	941000	667000	925000	613000	696000	895000	829000	526000	697000	801000	
	REQUIREMENT	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	1360000	
FLUORIDE TOTAL	ACTUAL	67.7	74.3	138	95.7	55	61.6	42.2	49.5	78	66.1	48.7	40.5	68.1	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
AMMONIA NITROGEN	ACTUAL	264	367	640	254	135	202	135	108	189	192	167	15.3	222	
	REQUIRED	1060	1110	1250	1420	1550	1590	1610	1700	1690	1480	1340	1390	1430	
pH		11.8	11.8	11.7	11.8	11.7	11.8	11.6	11.5	11.4	11.7	10.9	11.7		12
SUSPENDED SOLIDS	ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	
	REQUIRED	1590	1670	1830	2130	2330	2380	2410	2550	2530	2220	2010	2010	2190	
TOTAL SOLIDS	ACTUAL	1380000	1430000	2000000	1570000	1090000	1520000	1090000	1160000	1530000	1460000	904000	1160000	1230000	
	REQUIRED	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: General Motors of Canada Ltd. St. Catharines

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Welland Canal
INDIRECT: 9.2 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Coke and iron (pigs and scrap) are charged to a cupola to be processed into iron and cast as engine parts.

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous for five days a week through an outfall

COMMENTS:

Phenols and Suspended Solids not in compliance.
A consultant has been hired to investigate sources of phenol and recommend abatement measures. Company analytical procedures are also being checked.

IMIS NUMBER: 0001630003 SIC CODE: 323 MOE REGION: West Central DISTRICT: Welland

d0886

GENERAL MOTORS OF CANADA LTD. - 0001630003

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		122000	_	_	_	130000	133000	138000	861000	129000	128000	125000	126000	210000	
BIOCHEM. OXYGEN DEMAND	ACTUAL	_	_	_	_	_	_	_	70.4	201	198	87	117	135	
	REQUIREMENT								12900	1940	1920	1880	1890	4106	
pH		7.5	_	_	_	7.8	7.8	7.8	_	_	_	_	_	7.7	
PHENOLS	ACTUAL	15.9	_	_	_	13.6	0	6.4	0	0	0	0	0	3.98	3
	REQUIREMENT	2.44				2.6	2.66	2.76	17.2	2.58	2.56	2.5	2.52	4.2	
PHOSPHORUS TOTAL	ACTUAL	_	_	_	_	_	_	_	0	0	0	0	0	0	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
DISSOLVED SOLIDS	ACTUAL	3370	_	_	_	2340	2400	2910	1720	3580	2750	938	1970	2440	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED SOLIDS	ACTUAL	3270	_	_	_	0	1200	770	2020	1490	4060	1910	1720	1830	3
	REQUIREMENT	1830				1950	2000	2070	12900	1940	1920	1880	1890	1860	
OIL AND GREASE	ACTUAL	0	_	_	_	22.4	0	0	0	0	0	150	92.4	29.4	
	REQUIREMENT	_	_	_	_	1950	2000	2070	12900	1940	1920	1880	1890	1860	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: GNB Batteries Canada Inc.
Gould Manufacturing of Canada Ltd.
Fort Erie

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Frenchman's Creek to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Lead is melted and cast into batteries.

EFFLUENT QUALITY: Tertiary treatment with heavy metal removal and pH adjustment.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous for five days through an open outfall

COMMENTS:

Not in compliance for lead, suspended solids and pH.
All process waste water to be discharged to municipal sewer in 1986.

IMIS NUMBER: 0001580000 SIC CODE: 3391 MOE REGION: West Central DISTRICT: Welland

d0886

GNB BATTERIES CANADA INC - 0001580000

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		118	118	118	118	118	118	118	118	118	118	118	118	118	
LEAD filtered	ACTUAL	0.035	0.035	0.035	0.127	0.062	0.086	0.024	0.024	0.036	0.036	0.036	0.036	0.05	
	REQUIREMENT														
LEAD TOTAL unfiltered	ACTUAL	0.212	0.322	0.13	0.23	0.204	0.289	0.757	0.15	0.26	0.22	0.32	0.23	0.277	12
	REQUIREMENT	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118	
pH		8	7.12	11.1	5.61	7.82	6.82	10.6	_	_	_	_	_		2
SUSPENDED SOLIDS	ACTUAL	_	_	_	_	_	_	_	_	3.25	5.37	3.46	6.34	4.61	4
	REQUIREMENT									1.77	1.77	1.77	1.77	1.77	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Great Lakes Forest Products Ltd. Thunder Bay

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Kaministiquia River

INDIRECT: 9 km to Lake Superior (Thunder Bay)

DESCRIPTION OF ACTIVITY: Newsprint and kraft pulp are made from logs and chips by the kraft, stone groundwood and sulphite pulping processes.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibre etc.) and chemicals from pulping and bleaching liquors (chlorinated compounds).

EFFLUENT TRETMENT: Primary clarification with pH adjustment. Bisulphite liquor cross recovery. Modern closed cycle process in "B" kraft Mill.

DISCHARGE TYPE: Continuous through a submerged diffuser.

COMMENTS:

Total Phosphorous (May) and Suspended Solids (Sept. & Oct.) not in compliance.
Two TSS exceedances due to experimental process modifications and large amounts of Suspended Solids in raw water.
The Control Order for this company is being amended. The final clause requires a report for the company on what further works can be implemented to ensure Provincial Water Quality Requirements are met in the Kaministiquia River. Due to the high river flows, the survey of the river could not be completed in 1985 but has been completed in 1986. A new Control Order to address effluent quality will be issued in 1987.
The combined final effluent was sampled nine times during 1985 and tested by aerated 96-hr. rainbow trout bioassays (LC50 range of 31-50.9%). 7 of 9 LC50's were in the range of 40-46%.

IMIS NUMBER: 0000840009 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

GREAT LAKES FOREST PRODUCTS LTD - 0000840009
THUNDER BAY

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		220000	220000	220000	170000	250000	240000	250000	250000	230000	200000	180000	170000	217000	
BIOCHEM. OXYGEN	ACTUAL	54000	50000	50000	50000	53000	50000	50000	44000	43000	38000	36000	38000	46300	
DEMAND	REQUIREMENT	77700	77700	77700	77700	77700	77700	77700	77700	77700	77700	77700	77700	77700	
PHOSPHOROUS	ACTUAL	202.4	169	178	112	256	221	170	215	129	134	90	114	166	1
TOTAL	REQUIREMENT	220	220	220	170	250	240	250	250	230	200	180	170	217	
SUSPENDED	ACTUAL	14000	14000	12000	13000	14000	14000	10000	14000	15000	15000	14000	11000	13300	2
SOLIDS	REQUIREMENT	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: H. J. Heinz Company of Canada Ltd. Leamington

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Selkirk Drain

INDIRECT: 1.3 km Lake Erie

DESCRIPTION OF ACTIVITY: A wide variety of food products are made from produce grown locally.

EFFLUENT QUALITY: Contains vegetable processing waste (BOD and suspended solids).

EFFLUENT TREATMENT: Biological treatment system (activated sludge plus trickling filter).

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

BOD and TSS not in compliance.
Monthly phosphorous requirements were met all 12 times; BOD requirements were met 9 times; TSS requirements were met 8 out of 12 times.
Increased aeration capability has been provided.

IMIS NUMBER: 0001020007 SIC CODE: 103 1031 MOE REGION: Southwest DISTRICT: Windsor

d0886

H.J HEINZ CO. OF CANADA LTD. - 0001020007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		7930	8450	10200	10800	14400	13200	17900	41800	57900	20400	12800	7500	18600	
BIOCHEM. OXYGEN DEMAND	ACTUAL	54	39	156	72	115	301	298	204	693	173	78	20	184	3
	REQUIREMENT	120	127	153	162	216	198	268	627	869	306	192	113	279	
CHEM. OXYGEN DEMAND	ACTUAL	467	569	604	460	596	668	453	2150	5970	675	548	2960	1340	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
pH		7.37	7.23	7.19	7.32	7.23	7.31	7.35	7.47	7.22	7.37	7.56	7.4		
PHOSPHORUS TOTAL	ACTUAL	2.9	6.3	3.07	4.38	6.29	11.5	10.55	29.1	31.6	12.4	4.69	2.77	10.5	
	REQUIREMENT	7.93	8.45	10.2	10.8	14.4	13.2	17.9	41.8	57.9	20.4	12.8	7.5	18.6	
SUSPENDED SOLIDS	ACTUAL	261	102	137	223	184	180	122	2210	2120	70	103	69	482	4
	REQUIREMENT	119	127	153	162	216	198	269	627	869	306	192	113	279	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: INCO Ltd. Copper Cliff Creek Wastewater Treatment Plant

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Junction Creek to Vermillion River to Spanish River

INDIRECT: 70 km. to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Smelting and refining of nickel, copper and precious metals.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates and other metals.

EFFLUENT TREATMENT: Neutralization with lime.

DISCHARGE TYPE: Continuous

COMMENTS:

Iron, Nickel (April) and pH not in compliance.
There is a review of the Certificate of Approval to amend the Iron requirement in hand.
Requirements are set by concentration maximums in a Certificate of Approval as follows: iron 0.5 ppm; copper 0.2 ppm; nickel 0.5 ppm; suspended solids 15 ppm.

IMIS NUMBER: 0001690304 SIC CODE(S): 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

INCO LTD - 0001690304
COPPER CLIFF CREEK WASTEWATER TREATMENT PLANT

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		36300	38000	73100	95400	71400	48500	41400	28100	31200	81800	104600	75800	60500	
COPPER TOTAL	ACTUAL	5.8	5.3	13.2	13.4	9.28	4.85	5.39	7.87	3.74	8.18	9.41	3.71	7.51	
	REQUIREMENT	7.26	7.6	14.6	19.1	14.3	9.7	8.28	5.62	6.24	16.4	28.9	15.2	12.1	
IRON TOTAL	ACTUAL	22.1	18.2	51.9	47.7	33.6	24.3	32.7	14.1	11.9	27.8	58.6	8.1	29.2	4
	REQUIREMENT	18.2	19	36.7	47.7	35.7	24.3	20.7	14.1	15.6	40.9	52.3	37.9	30.3	
NICKEL TOTAL	ACTUAL	14.1	11.4	31.4	48.4	25	15.04	15.74	5.9	10.93	16.4	31.4	25.8	21	1
	REQUIREMENT	18.2	19	36.7	47.7	35.7	24.3	20.7	14.1	15.6	40.9	52.3	37.9	30.3	
AMMONIA	ACTUAL	283	327	629	515	357	252	187	135	131	376	_	356	323	
NITROGEN	REQUIREMENT	363	380	731	954	714	485	414	281	312	818		758	605	
pH		9.6	9.3	9.3	7.8	7.4	6.6	7.4	8.1	8.2	8.9	9.5	10.1		2
SUSPENDED	ACTUAL	200	224	607	477	428	243	290	113	93.7	327	523	606	344	
SOLIDS	REQUIREMENT	545	570	1097	1430	1071	728	621	422	468	1230	1570	1140	908	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: INCO Ltd. Nolin Creek Wastewater Treatment Plant

INDUSTRIAL ACTIVITY: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Nolin Creek to Junction Creek to Vermillion River to Spanish River

INDIRECT: 77 km. to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Metallurgical complex that smelts and refines nickel, copper and associated metals from concentrates.

EFFLUENT QUALITY: Contains a variety of dissolved metal salts.

EFFLUENT TREATMENT: Neutralized by addition of lime.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance.
High water levels due to spring runoff caused Suspended Solids exceedances. Also, a high pH is used to maximize metal precipitation. The Certificate of Approval is being reviewed to see if the concentration limits for Iron will be amended. The analytical method for metal determination is being changed to provide more accurate averages through lower detection limits. Effluent concentration limits (requirements) are set by Certificate of Approval as follows: iron 0.5 ppm; nickel 0.5 ppm; copper 0.2 ppm; total suspended solids 15 ppm; pH range 5.5 to 9.5.

IMIS NUMBER: 0001690601 SIC CODE: 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1286

INCO LTD - 0001690601
NOLIN CREEK WASTEWATER TREATMENT

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2400	2400	11200	27400	14800	2970	9900	6860	5640	11040	14700	4180	9460	
COPPER TOTAL	ACTUAL	0.3	0.4	1.7	3.02	3.85	0.32	3.96	0.68	1.29	3.2	4.1	0.7	1.96	
	REQUIREMENT	0.48	0.48	2.24	5.48	2.96	0.594	1.98	1.37	1.13	2.21	2.94	0.836	1.89	5
IRON TOTAL	ACTUAL	1.89	2.18	10.2	16.5	8.3	1.45	19.8	3.35	2.87	9.82	176	12.7	22.1	10
	REQUIREMENT	1.2	1.2	5.6	13.7	7.4	1.49	4.95	3.43	2.82	5.52	7.35	2.09	4.73	
NICKEL TOTAL	ACTUAL	1	0.74	5.1	8.77	7.85	0.95	7.14	1.37	1.75	6.07	7.48	2.55	4.23	5
	REQUIREMENT	1.2	1.2	5.1	8.77	7.4	1.49	4.95	3.43	2.82	5.52	7.35	2.09	4.73	
ZINC TOTAL	ACTUAL	_	_	_	_	_	_	_	_	_	0.7	_	0.1	4.85	
	REQUIREMENT														
AMMONIA	ACTUAL	25.9	30	33.6	_	44.5	38	48.6	46	31	32	_	20.9	29.2	3
NITROGEN	REQUIREMENT	24	24	112		148	29.7	99	68.6	56.4	110		41.8	94.6	
pH		10	9.9	9.9	8.2	10.1	7.2	10	9.4	10	9.9	10	11.3		9
SUSPENDED	ACTUAL	27.8	22.1	115	192	593	11.8	288	96	39.5	144	140	91.5	147	3
SOLIDS	REQUIREMENT	36	36	168	411	222	44.6	149	103	84.6	166	221	62.7	142	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: INCO Ltd. Garson Mine

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Junction Creek to Vermillion River to Spanish River

INDIRECT: 86 km. to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Mining and primary crushing of ore.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates.

EFFLUENT TREATMENT: Effluent from tailings area is neutralized with lime.

DISCHARGE TYPE: Continuous from mine water treatment system

COMMENTS:

Suspended Solids not in compliance for May and July.
High Solids content due to abnormal water levels from high spring runoff.
pH is operated over mining guidelines (9.5) to enhance metal precipitation.

IMIS NUMBER: 0001690700 SIC CODE(S): 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

INCO LTD - 0001690700
GARSON MINE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2870	630	320	2710	2460	2880	2290	2670	2830	2850	2840	3055	2370	
COPPER TOTAL	ACTUAL	0.3	0.1	0.1	0.4	0.12	0.26	0.07	0.07	0.05	0.05	0.08	0.05	0.138	
	REQUIREMENT														
IRON TOTAL	ACTUAL	0.1	0.1	0.1	0.8	0.39	0.32	0.29	0.13	0.18	0.45	0.98	0.21	0.34	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	1	0.2	0.23	3.2	0.79	0.52	0.41	0.53	0.24	0.8	1.93	0.86	0.893	
	REQUIREMENT														
ZINC TOTAL	ACTUAL	0.3	0.1	0	0.3	0.07	0.2	0.04	0.03	0.02	0.08	0.06	0.06	0.115	
	REQUIREMENT														
AMMONIA	ACTUAL	11.1	4.8	2.8	10.3	19.3	18.6	4.6	21.9	14.1	11.9	15.6	18.6	12.8	
NITROGEN	REQUIREMENT	28.7	6.3	3.2	27.1	24.6	28.8	22.9	26.7	28.3	28.5	28.4	30.55	23.7	
pH		10.5	11.1	9.7	7.9	11.2	9.9	11.9	9.7	10.2	10.7	9.7	10.6		11
SUSPENDED	ACTUAL	6.9	5.5	1.37	21.7	61.6	17.3	66.5	2.7	8.5	39.9	17	9.2	21.5	2
SOLIDS	REQUIREMENT	43.1	9.45	4.8	40.7	36.9	43.2	34.4	40.1	42.5	42.8	42.6	45.8	35.6	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: INCO LTD. Sulphur Products Dept. Sudbury (Copper Cliff)

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: to Copper Cliff tailings area

INDIRECT: 62 km. Junction Creek to Vermillion River to Spanish River

DESCRIPTION OF ACTIVITY: Sulphuric Acid is produced in the catalytic bed process from nickel refinery SO2 emissions and pyrrhotite roasting.

EFFLUENT QUALITY: Contains suspended solids (iron) and dissolved metals.

EFFLUENT TREATMENT: Treated through Copper Cliff Waste Water System (see IMIS 0001690601).

DISCHARGE TYPE: Continuous

COMMENTS:

Iron, Nickel (Oct.), pH and Suspended Solids not in compliance.
The discharge has been routed to plant tailings area where treatment will take place through the Copper Cliff Wastewater Plant.

IMIS NUMBER: 0001690502 SIC CODE(S): 3782 MOE REGION: Northeast DISTRICT: Sudbury

d0886

INCO LTD - 0001690582
SULPHUR PRODUCTS DEPT. NO 2 PLANT

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1240	1150	1760	850	850	590	458	589	_	1050	90	510	831	
IRON TOTAL	ACTUAL	0.2	1.5	3	0.77	0.34	0.06	0.72	0.96	_	12.9	0.06	0.19	1.88	6
	REQUIREMENT	1.24	1.15	1.76	0.85	0.85	0.59	0.46	0.59		1.05	0.09	0.51	0.83	
NICKEL TOTAL	ACTUAL	0.2	0.1	0.7	0.34	0.17	0.05	0.1	0.12	_	1.91	0.03	0.18	0.36	1
	REQUIREMENT	1.24	1.15	1.76	0.85	0.85	0.59	0.46	0.59		1.05	0.09	0.51	0.83	
pH		11	9.8	9.6	9.8	9.6	9.4	9.6	12.1	_	10.7	8.4	9.9		9
DISSOLVED SOLIDS	ACTUAL	1	4	56	3	3	1	3.7	11.2	_	127	1	1	19.3	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED SOLIDS	ACTUAL	1.2	4.6	56.4	3.4	2.6	0.6	3.7	11.2	_	127	0.7	1	19.3	3
	REQUIREMENT	18.6	17.3	26.4	12.8	12.8	8.85	6.87	8.84		15.8	1.35	7.65	12.5	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: INCO Metals Ltd. Port Colborne

INDUSTRIAL SECTOR: Metal Mining, Smelting and Refining

RECEIVING WATERBODY: DIRECT: Lake Erie

INDIRECT:

DESCRIPTION OF ACTIVITY: Electrolytic processes are used to recover pure metals like nickel, copper silver, gold, etc.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Filtration plant.

DISCHARGE TYPE: open outfall

COMMENTS:

Company is in compliance with annual averages, but not with all monthly requirements.

IMIS NUMBER: 0001600105 SIC CODE: 295 MOE REGION: West Central DISTRICT: Welland

d0886

INCO METALS CO. - 0001600105

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		13800	16000	18500	14500	11400	14100	9500	12200	15300	15200	19700	13400	14500	
NICKEL TOTAL	ACTUAL	10	22	26	12	7	4	2	2	3	3	9.85	2.68	10	2
	REQUIREMENT	13.8	16	18.5	14.5	11.4	14.1	9.5	12.2	15.3	15.2	19.7	13.4	14.5	
SUSPENDED SOLIDS	ACTUAL	207	272	259	232	171	99	19	12	6	15	78.8	53.6	119	2
	REQUIREMENT	207	240	278	218	171	212	143	183	230	228	296	201	218	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: International Minerals and Chemicals Dunnville

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Grand River

INDIRECT: 3 km to Lake Erie

DESCRIPTION OF ACTIVITY: Phosphate ore, sulphuric acid and phosphoric acid are used to make fertilizer.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Lime precipitation.

DISCHARGE TYPE: continuous at shoreline

COMMENTS:

Phosphorous not in compliance.
Since plant shut down, phosphorous loadings have continued to decline.
1986 levels show a continuing improvement over 1985.

IMIS NUMBER: 0001500008 SIC CODE: 372 MOE REGION: West Central DISTRICT: Haldimand Norfolk/Brant

d0886

INTERNATIONAL MINERALS AND CHEMICAL CORP. - 0001500008

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1130	1300	2329	2620	2450	2400	2280	2260	2120	2070	2230	1960	2096	
pH		8.2	8.2	8.4	9.3	9.4	9.2	9.2	9.2	9.4	9.3	9.3	9.3		
PHOSPHOROUS	ACTUAL	14.2	14.7	12	10.7	7	7	7.3	10.6	9.3	9.9	13.5	13.5	10.81	12
TOTAL	REQUIREMENT	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: James River Marathon Ltd. (formerly American Can) Marathon

INDUSTRIAL SECTOR: Kraft Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Lake Superior INDIRECT:

DESCRIPTION OF ACTIVITY: Pulp is produced from chips by the kraft pulping process

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibres) and many organic (some chlorinated) compounds.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous subsurface

COMMENTS:

In compliance.
Existing Control Order requires further stepwise reductions in Total Suspended Solids and Biochemical Oxygen Demand as follows: BOD to 35 kg/ADMT by Dec. 31, 1986 and 30 kg/ADMT by Dec.31, 1989 and S.S. to 9,000 kg/day by Dec. 31, 1984 (met in 1983), 6,000 kg/day by Dec. 31, 1985 and 4,000 kg/day byJune 30, 1988. The Order also requires compliance with the federal toxicity requirement.
The final effluent was effluent was sampled nine times during 1985 and tested by aerated 96-hr. rainbow trout bioassays (LC50 range of 5.4-22.6%). 7 of 9 LC50's were >15%.

IMIS NUMBER: 0000850008 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

JAMES RIVER MARATHON LTD - 0090850008
MARATHON

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		70500	60410	69200	67020	66000	66700	72400	73500	71300	72300	69200	69900	69040	
BIOCHEM. OXYGEN DEMAND	ACTUAL	13400	11400	15200	14500	12500	12500	12800	14000	11100	15200	12800	13300	13200	
	REQUIREMENT														
PHOSPHOROUS TOTAL	ACTUAL	31.7	21.8	25.1	30.5	25.1	25.2	27.2	32	31	35.8	36	37.7	30.9	
	REQUIREMENT	70.5	60.41	69.2	67.02	66	66.7	72.4	73.5	71.3	72.3	69.2	69.9	69.04	
DISSOLVED SOLIDS	ACTUAL	96800	68100	98400	97700	84500	80300	91900	97000	71900	95900	94600	84100	88400	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	4790	3140	3810	2880	4420	3940	4060	6620	4420	3760	4910	7540	4520	
	REQUIREMENT	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: J. M. Schneider Inc., Ayr

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Nith River to Grand River

INDIRECT: 196 km to Lake Erie

DESCRIPTION OF ACTIVITY: Beef and pork is packaged and poultry is deep fried and packaged for retail sales.

EFFLUENT QUALITY: Contains dissolved organics and phosphorous.

EFFLUENT TREATMENT: Flow equalization, dissolved air flotation, aeration and sedimentation.

DISCHARGE TYPE: seven day continuous flow through a submerged outfall

COMMENTS:

Not in compliance.
No discharge in June due to plant strike. Company failed to sample in September and no oil and grease values are available for July and August.
Discharge quality failed to meet limits in 1985. In upgrading its existing wastewater treatment plant the company failed to improve quality by adding a Dissolved Air Flotation Unit alone in March '85. Further addition of flocculants in December '85 and flow equalization in February '86 has improved discharge quality to where it has complied with limits (since June '86).
Flowmeter installed in April '86 indicates that actual discharge volume is approximately one fourth of the reported flows, i.e. actual loads were one fourth of those listed herein. Accurate flows have been reported since June 1986. Monthly requirements are based on Certificate of Approval and do not vary monthly.

IMIS NUMBER: 0001440007 SIC CODE: 1011 1012 MOE REGION: West Central DISTRICT: Cambridge

d0886

J. M. SCHNEIDER INC. - 0001440007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
(FLOW LIMIT 363)

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		228	299	358	301	524	0	463	483	496	577	517	346	417	6
BIOCHEM. OXYGEN	ACTUAL	163	46.6	697	56.3	213	0	102	57.9	_	49.3	10.9	2.11	140	9
DEMAND	REQUIREMENT	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4		5.4	5.4	5.4	5.4	
AMMONIA	ACTUAL	5.92	13.7	2.5	21	20.7	_	0.56	1.8	_	20.2	28.2	5.71	12	7
NITROGEN	REQUIREMENT	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6	3.6	
pH		7.28	7.22	6.8	7.4	7.21	_	7.47	7.36	_	7.2	7.5	7.3	7.27	
PHOSPHORUS	ACTUAL	0.68	1.7	0.3	0.2	1.52	0	5.37	8.5	_	4.59	1.06	2.91	2.683	4
TOTAL	REQUIREMENT	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
SUSPENDED	ACTUAL	255	38	893	60	258	0	291	51.2	_	59.4	11.4	4.43	192	9
SOLIDS	REQUIREMENT	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4		5.4	5.4	5.4	5.4	
OIL AND GREASE	ACTUAL	51.7	17.3	116	14.1	37.8	_	_	_	_	37.6	13.7	2.35	36.3	7
	REQUIREMENT	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4		5.4	5.4	5.4	5.4	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Kimberly Clark of Canada Ltd. St. Catharines

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Old Welland Canal to Twelve Mile Creek
INDIRECT: 10.0 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Pulp and clean waste paper is made into tissue.

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

Not in compliance.
Effluent quality meets Ministry quidelines for Suspended Solids but exceeded the BOD limits.

IMIS NUMBER: 0000830208 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

KIMBERLY CLARK OF CANADA LTD - 0000830208

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		8920	8800	9150	8280	7980	9590	9860	11130	9270	9860	9580	8530	9240	
BIOCHEM. OXYGEN DEMAND	ACTUAL	450	380	310	240	380	360	440	560	460	410	560	600	430	9
	REQUIREMENT	362	362	362	362	362	362	362	362	362	362	362	362	362	
DISSOLVED SOLIDS	ACTUAL	760	730	20	330	700	650	650	770	810	660	850	890	660	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	60	30	40	50	30	50	60	60	50	60	100	100	58	
	REQUIREMENT	362	362	362	362	362	362	362	362	362	362	362	362	362	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Kimberly-Clark of Canada Ltd. Terrace Bay

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Blackbird Creek INDIRECT: Lake Superior (Jackfish Bay)

DESCRIPTION OF ACTIVITY: Logs are made into pulp by the kraft pulping process

EFFLUENT QUALITY: Contains suspended solids (bark, wood, fibres) and organic compounds (some chlorinated) from the pulping process.

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous surface

COMMENTS:

In compliance.
Effluent quality met Ministry requirements. The existing Control Order which expires December 31, 1987, includes measures to further improve effluent quality (BOD to be reduced to 40 kg/ADMT by Sept. 30, 1985 and to 30 kg/ADMT by Oct. 31, 1986), to produce an effluent non-lethal to fish (1986).
Control Order amended in 1986. New Control Order to be issued in 1987.
The final effluent was sampled ten times during 1985 and tested by aerated 96-hr. rainbow trout (LC50 range of 10-45.6%).

IMIS NUMBER: 0000830000 SIC CODE(S): 271 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

KIMBERLY CLARK OF CANADA - 0000830000
TERRACE BAY

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		142000	123000	118000	109000	111000	119000	114000	130000	117000	121000	109000	110000	119000	
BIOCHEM. OXYGEN DEMAND	ACTUAL	41200	41500	42200	42000	36000	31000	30000	30000	29700	30500	33600	31800	35000	
	REQUIREMENT														
PHOSPHORUS TOTAL	ACTUAL	73.8	89.5	57.6	78.3	65	37.4	25	54.5	45.3	64.8	61	61	59.4	
	REQUIREMENT	142	123	118	109	111	119	114	130	117	121	109	110	119	
DISSOLVED SOLIDS	ACTUAL	185000	191000	176000	184000	169000	157000	139000	154000	136000	152000	160000	157000	163000	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	6500	7600	5600	7600	5100	5700	5100	6500	5790	5100	4300	4900	5820	
	REQUIREMENT	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Kraft Foods Ltd. Ingleside

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Hoople Creek

INDIRECT: 2.0 km to St. Lawrence River

DESCRIPTION OF ACTIVITY: Milk is made into cheese

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Extended aeration using diffused air.

DISCHARGE TYPE: continuous through a submerged diffuser

COMMENTS:

BOD not in compliance.
Operational and design problems with the treatment plant caused elevated levels of biochemical oxygen demand and suspended solids as well as odours.
Control Order or Requirement and Direction will be prepared which will require effluent to meet Ministry standards, including one for phosphorus.

To meet final requirement of 15 mg/L, effluent diluted is a cooling water and final flow is not measured.

IMIS NUMBER: 0001940006 SIC CODE: 104 MOE REGION: Southeast DISTRICT: Cornwall

d0886

KRAFT LTD - [illegible]

ALL VALUES IN CONCENTRATION UNITS
(mg/L)

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
BIOCHEM. OXYGEN DEMAND	ACTUAL	17.7	11.7	15.5	17.4	47.1	14	14.5	8.9	12.5	9.1	14.3	13.9	16.4	4
	REQUIREMENT	15	15	15	15	15	15	15	15	15	15	15	15	15	
PHOSPHOROUS	ACTUAL	4.4	3	3.1	6.1	9.7	5.5	4.4	4.9	2.8	5.1	4.9	6	5	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	39.4	43.5	25.7	26.9	125	42.5	40.6	17.1	18.8	26.6	28	44.2	39.9	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: MacMillan Bloedel Limited
Sturgeon Falls Division
Sturgeon Falls

INDUSTRIAL SECTOR: Pulp and Paper

RECEIVING WATERBODY: DIRECT: Sturgeon River to Lake Nipissing to French River Main Channel

INDIRECT: 124 km to Lake Huron (Georgian Bay)

DESCRIPTION OF ACTIVITY: Two different processes are used. Chips are thermal refined and glued to form hardboard. Chips are converted by the neutral sulphite semi-chemical process into corrugating medium.

EFFLUENT QUALITY: Contains suspended solids (bark, wood, pulp) and dissolved organics.

EFFLUENT TREATMENT: Primary. Unique secondary is under development.

DISCHARGE TYPE: Continuous, seven days a week.

COMMENTS:

BOD not in compliance.
Loading requirements are based on the Control Order limit for suspended solids and probable future limit for biochemical oxygen.
The final effluent was sampled once during 1985 and tested by an aerated 96-hr. rainbow trout bioassay. The LC50 was estimated to have been equal to 14.2%.

IMIS NUMBER: 0001530005 SIC CODE: 271 MOE REGION: Northeast DISTRICT: North Bay

d0886

MACMILLAN BLOEDEL LTD - 0001530005
STURGEON FALLS

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		11100	13300	10440	11600	10910	10700	10640	10980	12400	11600	12300	10340	11400	
BIOCHEM. OXYGEN	ACTUAL	39000	48200	33200	33900	33100	43000	40760	41400	47300	46300	50750	44070	41800	12
DEMAND	REQUIREMENT	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
SUSPENDED	ACTUAL	2110	2910	2230	2280	2690	2370	2480	2390	2600	2550	2330	2200	2430	
SOLIDS	REQUIREMENT	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Nitrochem Inc. Maitland

INDUSTRIAL SECTOR: Inorganic Chemicals

RECEIVING WATERBODY: DIRECT: St. Lawrence River

INDIRECT:

DESCRIPTION OF ACTIVITY: Nitric acid and different grades of ammonia based fertilizer are made.

EFFLUENT QUALITY: Contains nitrogenous wastes.

EFFLUENT TREATMENT: Equalization pond to go into new aquachemical treatment unit for reclamation of nitrogenous wastes.

DISCHARGE TYPE: Continuous

COMMENTS:

Kjeldahl Nitrogen, Nitrates and Nitrites not in compliance.
New aquachemical unit being installed in spring 1986. Completion expected in mid 1987.
Equalization pond and sewer segregation complete.
The final effluent was sampled once during 1985 and tested by an aerated 96-hr. rainbow trout bioassay.
The LC50 was estimated to have been equal to 2.2%.

IMIS NUMBER: 0001710003 SIC CODE: 372 MOE REGION: Southeast DISTRICT: Kingston

d0886

NITROCHEM - 0001710003
MAITLAND

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2090	2070	2190	2200	2180	2660	2600	2280	2690	2450	2800	2690	241	
KJELDAHL NITROGEN	ACTUAL	1180	1018	1007	1064	1207	1800	1230	1006	1370	1730	1850	1380	1320	12
	REQUIREMENT	105	104	110	110	109	133	130	114	135	123	140	135	121	
NITRATES AND	ACTUAL	796	612	683	629	605	881	789	668	953	845	945	869	773	12
NITRITES	REQUIREMENT	42	41	44	44	44	53	52	46	54	49	56	54	48	
pH		8.2	8.8	8.3	8.9	9.1	9.1	8.4	8.3	8.4	9	9.1	8.9		
PHOSPHATES	ACTUAL	0.21	0.2	0.22	0.3	1.6	1	0.4	2.2	1.5	1.4	1.1	1	0.93	
TOTAL	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Norton Company Niagara Falls

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Welland River to Niagara River
INDIRECT:

DESCRIPTION OF PROCESS: Abrasive oxides are manufactured in electric arc furnaces.

EFFLUENT QUALITY: There are 4 discharges to the Welland River; results are composite. of all discharges.

EFFLUENT TRATMENT: Oil water separation, pH adjustment and solids precipitation on product process waste water are carried out.

DISCHARGE TYPE: continuous through a submerged outfall

COMMENTS:

Company is in compliance with annual loading requirements, but not with all monthly requirements. Company not a significant source of BOD and phosphorus.

IMIS NUMBER: 0001650001 SIC CODE: 357 MOE REGION: West Central DISTRICT: Welland

d0886

NORTON COMPANY - 0001650001

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		8502	8502	8502	8502	8502	13730	11780	11780	_	11510	8180	13750	10295	
pH		8.1	6.2	6.3	7.1	7.3	7	6.7	6.4	_	6.6	6.6	5.4		1
SUSPENDED SOLIDS	ACTUAL	335	166	229	143	99.7	0	55.9	7.52	_	379	76.5	58.9	141	5
	REQUIREMENT	128	128	128	128	128	206	176.7	176.7		178	123	206	142	
OIL AND GREASE	ACTUAL	8.5	8.5	29.8	8.5	8.5	13.7	11.8	11.8	_	11.5	8.1	13.7	12.2	
	REQUIREMENT	128	128	128	128	128	206	176.7	176.7	_	178	123	206	155	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ogilvie Mills Ltd. (Industrial Grain Products) Thunder Bay

INDUSTRIAL SECTOR: Food and beverage

RECEIVING WATERBODY: DIRECT: Kaministiquia River INDIRECT: 3 km to Lake Superior (Thunder Bay)

DESCRIPTION OF ACTIVITY: Starch and gluten are separated from the grain.

EFFLUENT QUALITY: Contains suspended solids (wheat husk) and starches (glutens).

EFFLUENT TREATMENT: Secondary biological anaerobic / aerobic.

DISCHARGE TYPE: continuous surface

COMMENTS:

BOD not in compliance.
Control Order limits BOD5 to 900 kg/day.
Treatment plant is state of the art for BOD effluent reduction.
The company, with the concurrence of the Ministry, is continuing efforts to improve treatment plant operations.
The final effluent was sampled twice during 1985 and tested by aerated 96-hr. rainbow trout bioassay.
Both LC50's were estimated to have been equal to 13%.

IMIS NUMBER: 0000880005 SIC CODE(S): MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

OGILVIE MILLS - 0000880035

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		975	970	990	990	1030	1009	1100	1010	950	970	957	930	1014	
BIOCHEM. OXYGEN DEMAND	ACTUAL	2850	3410	3600	7300	1450	1018	1600	3440	1600	900	2270	849	2530	10
	REQUIREMENT	900	900	900	900	900	900	900	900	900	900	900	900	900	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Omstead Food Ltd. Wheatley

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Muddy Creek

INDIRECT: 1.0 km Lake Erie

DESCRIPTION OF ACTIVITY: Fish is processed and vegetables grown locally are processed/frozen.

EFFLUENT QUALITY: Contains fish and vegetable processing waste (BOD. suspended solids).

EFFLUENT TREATMENT: Extended aeration system.

DISCHARGE TYPE: continuous, when plant is operating, through an open outfall

COMMENTS:

BOD, Phosphorous and Suspended Solids not in compliance.
Upsets during cold weather may occur.
Operating improvements such as nutrient addition have been implemented.

IMIS NUMBER: 0001050004 SIC CODE: 102 103 1032 MOE REGION: Southwest DISTRICT: Windsor

d0886

OMSTEAD FOODS LTD - 0001050004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		846	928	1640	2710	2640	1970	4600	5880	6350	7510	6530	4090	3810	
BIOCHEM OX.	ACTUAL	8.18	24.8	44	11.7	15.2	21.9	42.6	59	51.5	61.1	43.8	86.3	39.2	3
DEMAND	REQUIRED	12.7	13.9	24.6	40.7	39.6	29.6	69	88.2	95.2	113	98	61.4	57.2	
AMMONIA	ACTUAL	1.7	4	1.6	14.6	17.6	2.6	17.6	8.2	1.4	7.7	2	0.8	6.9	
NITROGEN	REQUIRED	8.5	9.3	16.4	27.1	26.4	19.7	46	58.8	63.5	75.1	65.3	40.9	38.1	
PHOSPHORUS TOTAL	ACTUAL	0.11	_	0.38	3.12	1.5	0.86	4	7.6	6.5	5.9	2.7	2.2	3.17	2
	REQUIRED	4.5		4.5	4.5	4.5	4.5	4.6	5.88	6.35	7.51	6.53	4.5	5.6	
SUSPENDED	ACTUAL	43.3	26.4	24	38.3	42.4	30.9	64.3	56.7	48.7	102	94	207	64.9	5
SOLIDS	REQUIRED	12.7	13.9	24.6	40.7	39.6	29.6	69	88.2	95.3	113	98	61.4	57.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro
Lambton TGS
Courtright

INDUSTRIAL ACTIVITY: Electric Power Generation

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Coal is burned

EFFLUENT QUALITY: Hot water

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous (once through condenser cooling water).

COMMENTS:

The maximum temperature exceedances were a result of high inlet temperatures during July, August and September.

IMIS NUMBER: SIC CODE: 572 MOE REGION: Southwest DISTRICT: Sarnia

d0886

ONTARIO HYDRO
LAMBTON TGS

ALL LOADS IN KG/DAY
ALL FLOWS IN MILLION CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED
FLOW		95.8	91	97.6	73.9	87.6	83.1	70.9	70.4	70.4	71.1	74.1	97.6	84.5	
TEMPERATUTRE RISE	ACTUAL	18.3	14.9	14.1	15.3	12.9	14.2	14.1	14.3	13.9	13.7	14	15	14.53	
(MAX.)	GUIDELINE	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	
MAX. EFFLUENT	ACTUAL	18.6	15.3	16.5	20.9	24.3	30.4	33.9	39.5	34.3	28.5	23.7	17.8	25.31	.023
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	
SUSPENDED	ACTUAL	95800	0*	0*	0*	0*	49900	0*	0	113000	0	74100	0*		
SOLIDS	REQUIREMENT	1437000	1365000	1464000	1109000	1314000	1250000	1064000	1056000	1056000	1067000	1110000	1460000		

0* Intake exceeded discharge.

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro (TGS) Nanticoke

INDUSTRIAL SECTOR: Electric Power Generation

RECEIVING WATERBODY: DIRECT: Lake Erie

INDIRECT:

PROCESS TYPE: Coal fired thermal generating station.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary and secondary ash settling cells, primary and secondary settling lagoons.

DISCHARGE TYPE: Continuous

COMMENTS:

August Suspended Solids not in compliance.
Data applies to effluent from ash lagoon only. Wastewater from lagoon is mixed with condensed cooling water prior to discharge.
Effluent flow applies only to ash lagoon, not total discharge of cooling water plus ash lagoon effluent.

IMIS NUMBER: 0001840008 SIC CODE: 572 MOE REGION: West Central DISTRICT: Haldimand-Norfolk/Brant

d0886

ONTARIO HYDRO - 0001840008
NANTICOKE TGS (Ash Lagoon)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		65400	60100	54800	30000	47200	48100	25800	33100	38000	33400	42200	60100	44800	
CHROMIUM TOTAL	ACTUAL	0.98	1.2	_	0	_	0	0	_	0	0	0	0	0.242	
	REQUIREMENT	65.4	60.1		30		48.1	25.8		38	33.4	42.2	60.1	44.8	
IRON TOTAL	ACTUAL	0	0	_	0	_	0	0	_	0	0	0	0	0	
	REQUIREMENT	65.4	60.1		30		48.1	25.8		38	33.4	42.2	60.1	44.8	
PHOSPHOROUS	ACTUAL	0	_	0.55	_	0	0.02	0	0	_	0.13	0.21	0	0.101	
TOTAL	REQUIREMENT	65.4		54.8		47.2	48.1	25.8	33.1		33.4	42.2	60.1	44.8	
DISSOLVED SOLIDS	ACTUAL	21400	26500	25200	9084	12700	15400	8910	9460	10870	10380	13100	31200	16200	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED	ACTUAL	327	541	685	129	0	245	297	1130	456	92	0	0	325	1
SOLIDS	REQUIREMENT	981	901	822	450	708	721	387	496	570	501	633	901	672	
SULPHATES	ACTUAL	12200	11700	11000	6150	5910	9790	5300	5560	7000	6410	9260	12300	8540	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro
Nanticoke TGS
Nanticoke

INDUSTRIAL SECTOR: Electric Power Generation

RECEIVING WATERBODY: DIRECT: Lake Erie

INDIRECT:

DESCRIPTION OF ACTIVITY: Coal fired thermal generating station.

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous (once through condenser cooling water).

COMMENTS:

* Nanticoke TGS Tempering Exemption in effect July 1, 1983, for a five year period.

IMIS NUMBER: 0001840008 SIC CODE: 572 MOE REGION: West Central DISTRICT: Haldimand-Norfolk/Brant

d0886

ONTARIO HYDRO
NANTICOKE TGS (Cooling Water)

TEMPERATURES IN DEGREES CELSIUS
ALL FLOWS IN MILLION CUBIC METRES/MONTH

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED
FLOW		265.3	281.9	335.8	209.6	518.8	238.5	192.6	205.9	246.8	193.5	231.9	327.3	270.6	
TEMPERATUTRE RISE	ACTUAL	12.2	12.1	10.7	11.5	12.2	12.5	11	9.4	11.9	9.5	9.8	10.5	11.11	0
(MAX.)	GUIDELINE	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
MAX. EFFLUENT	ACTUAL	16.5	13.6	13.5	14.1	23.7	23.7	28.1	30.6	31	26.1	20.8	14.1	19.65	–
TEMPERATURE	GUIDELINE	35	35	35	35	35	35	35	35	35	35	35	35	35	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro
Thunder Bay, TGS
Thunder Bay

INDUSTRIAL SECTOR: Electric Power Production

RECEIVING WATERBODY: DIRECT: Lake Superior (Thunder Bay) INDIRECT:

DESCRIPTION OF ACTIVITY: Coal is burned

EFFLUENT QUALITY: Hot water, suspended solids, BOD5.

EFFLUENT TREATMENT: Coagulant aid, sedimentation.

DISCHARGE TYPE: Continuous (once through condenser cooling water).

COMMENTS:

In compliance.
Effluent quality met Ministry requirements.

IMIS NUMBER: SIC CODE(S): 572 MOE REGION: Northwest DISTRICT: Thunder Ba

d0886

ONTARIO HYDRO
THUNDER BAY

ALL LOADS IN KG/DAY
ALL FLOWS IN MILLION CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED
FLOW		34.7	29	27.1	21.6	7.6	18.1	26.6	23	8.6	17	26.6	20	21.7	
TEMPERATUTRE RISE	ACTUAL	8	8	8	9	8.8	8.5	9	9	9	9	9	7	8.52	
(MAX.)	GUIDELINE	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	
MAX. EFFLUENT	ACTUAL	8	8	8	14.3	19.8	21	24	25	23	16	12	7	15.51	
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro Bruce N.P.G.S.
Domestic Sewage Treatment Plant
Tiverton

INDUSTRIAL ACTIVITY: Electric Power Generation

RECEIVING WATERBODY: DIRECT: Lake Huron

INDIRECT:

DESCRIPTION OF ACTIVITY: Plant treats sanitary wastes from the generating station complex

EFFLUENT QUALITY: Hot water

EFFLUENT TREATMENT: Secondary sewage treatment with phosphorous removal.

DISCHARGE TYPE:

COMMENTS:

In compliance.
Reportng procedures at present time do not readily allow reporting of monthly data.

IMIS NUMBER: 0001840107 SIC CODE: 572 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

ONTARIO HYDRO 0001840107
BRUCE N.P.D.S
DOMESTIC SEWAGE TREATMENT PLANT

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW														3070	
PHOSPHOROUS	ACTUAL													0.67	
TOTAL	REQUIREMENT													3.07	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro Bruce N.P.G.S.
Heavy Water Plant
Tiverton

INDUSTRIAL ACTIVITY: Electric Power Generation

RECEIVING WATERBODY: DIRECT: Lake Huron

INDIRECT:

DESCRIPTION OF ACTIVITY: Heavy water is produced for use in nuclear reactors.

EFFLUENT QUALITY: Hot water and dissolved hydrogen

EFFLUENT TREATMENT: Continuous

DISCHARGE TYPE:

COMMENTS:

In compliance.

IMIS NUMBER: 0001840107 SIC CODE: 572 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

ONTARIO HYDRO 0001840107
BRUCE N.P.D.S
HEAVY WATER PLANT

ALL LOADS IN KG/DAY
ALL FLOWS IN MILLION CUBIC METRES/DAY
TEMPERATURES IN DEGREES CELSIUS

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED	TOTAL EXCEEDENCES
FLOW		1.94	2.15	1.88	1.65	1.43	1.77	1.7	1.67	1.24	1.68	1.73	1.67	1.71		
SULPHIDES	ACTUAL	1.1	1.3	1.2	5	3.9	4.9	5.6	5.5	3.2	2.5	3.9	4.2	4.35		
	REQUIREMENT	215	215	215	215	215	215	215	215	215	215	215	215	215		
TEMPERATURE RISE	ACTUAL	8.8	8.4	9.2	8.6	4.6	9.6	9.3	8.6	6.4	6.7	9.3	10.2	8.3		
(MAX.)	GUIDELINE	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1		
MAX. EFFLUENT	ACTUAL	10.4	8.9	11.2	13.2	12.6	20.8	26.1	26.5	24.9	22	19.1	14.1	17.5		
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2		

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Ontario Hydro
Bruce N.P.G.S. Generating Stns. A & B
Tiverton

INDUSTRIAL ACTIVITY: Electric Power Generation

RECEIVING WATERBODY: DIRECT: Lake Huron

INDIRECT:

DESCRIPTION OF ACTIVITY: Nuclear Power

EFFLUENT QUALITY: Hot water

EFFLUENT TREATMENT: Dilution (once through condenser cooling water).

DISCHARGE TYPE: Continuous

COMMENTS:

Both in compliance.

IMIS NUMBER: 0001840107 SIC CODE: 572 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

ONTARIO HYDRO 0001840107
BRUCE N.P.D.S
STATION A & B

TEMPERATURES IN DEGREES CELSIUS
ALL FLOWS IN MILLION CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED
STATION A															
FLOW		12.02	42.45	13	11.49	5.47	11.17	13.89	14.24	10.52	8.9	14.16	30.4	15.64	
TEMPERATURE RISE	ACTUAL	10.1	9.7	10.6	8.4	3.5	8.7	9.3	9.5	7.4	6.3	10.1	10.5	8.7	
(MAX)	GUIDELINE	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	
MAX. EFFLUENT	ACTUAL	11.9	10.5	12.4	12.3	11.3	17.9	25.6	27.2	21	16.4	18.2	13.1	16.5	
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	
STATION B															
FLOW		8.01	6.83	5.43	9.23	5.07	8.74	10.89	9.36	10.23	9.39	9.43	7.65	8.36	
TEMPERATURE RISE	ACTUAL	8.6	8.8	5.9	8.7	6.1	7.4	8.3	9.7	8.3	8.8	8.3	9.2	8.2	
(MAX)	GUIDELINE	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	
MAX. EFFLUENT	ACTUAL	9.9	9.6	7.1	11.8	12.6	16.3	22.8	25.1	24.9	22.2	15.8	11.6	15.8	
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Ontario Hydro Lakeview TGS
& PLANT LOCATION: Toronto

INDUSTRIAL SECTOR: Electrical Power Generation

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Settling lagoon.

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance.

IMIS NO.: SIC CODE: 527 MOE REGION: Central DISTRICT: TorontoPeel

d0886

ONTARIO HYDRO
LAKEVIEW TGS

ALL LOADS IN KG/DAY
ALL FLOWS IN MILLION CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	% OF OPERATING HOURS EXCEEDED
FLOW		89.4	62.6	97.2	97.2	100	77.1	40.7	31.4	45.8	58.5	56.2	97.7	71.1	
TEMPERATUTRE RISE	ACTUAL	10	11	11	10.3	10	9	8.3	8	9.3	11	9	9.4	9.77	0
	GUIDELINE	11	11	11	11	11	11	11	11	11	11	11	11	11	
MAX. EFFLUENT	ACTUAL	13.3	13.3	15.5	15	19	18	20	28	28	22	18	15.8	18.83	0
TEMPERATURE	GUIDELINE	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Petro Canada Products Ltd.
& PLANT LOCATION: Mississauga

INDUSTRIAL SECTOR: Petroleum Refinery

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Activated sludge.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance.
Problems were encountered during August through November resulting in storm water effluent being discharged directly to the lake.

IMIS NO.: 0000130104 SIC CODE: 365 MOE REGION: Central DISTRICT: Halton-Peel

d0886n2486

PETRO-CANADA PRODUCTS - 0000130104

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
(FLOWS ARE FOR PROCESS EFFLUENT ONLY
AND DOES NOT INCLUDE ONCE THROUGH COOLING WATER)

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		16700	17700	19300	10600	9920	11300	10800	11900	11900	13100	14200	11500	13200	
AMMONIA NITROGEN	ACTUAL	17.8	22.3	45	37.1	40.4	24	29.1	7	4.7	82.2	8.2	15	27.7	
	REQUIREMENT	167	177	193	106	99.2	113	108	119	119	131	142	115	129.6	
PHENOLS	ACTUAL	1.72	1.05	8.47	0.15	0.14	0.12	0.13	0.09	0.29	0.96	0.51	0.08	1.14	6
	REQUIREMENT	0.33	0.35	0.37	0.22	0.2	0.23	0.22	0.24	0.24	0.26	0.28	0.23	0.26	
SUSPENDED SOLIDS	ACTUAL	139	231	146	118	320	231	151	195	110	248	102	94	174	4
	REQUIREMENT	251	266	290	158	170	170	162	179	179	197	213	173	194	
OIL AND GREASE	ACTUAL	100	236	151	74.2	115	119	100	64.3	61.6	248	57.9	28.7	113	4
	REQUIREMENT	167	177	193	106	99.2	113	108	119	119	131	142	115	133	
SULPHIDES	ACTUAL	0.6	0.9	0.3	0.4	1.8	0.7	0.3	0.8	0.5	0.5	0.3	0.3	0.6	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Petro Canada Products Ltd.
& PLANT LOCATION: Oakville

INDUSTRIAL SECTOR: Petroleum Refinery

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Activated sludge.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance.
Improvements to effluent treatment plant were completed in 1984.
Plant has been assessed by regional staff. The study shows that further improvements are required to reduce levels. The company will be requested to submit a program in early 1987 outlining remedial measures to improve effluent discharge to Lake Ontario.

IMIS NO.: 0000530006 SIC CODE: 365 MOE REGION: Central DISTRICT: Halton-Peel

d0886

PETRO-CANADA PRODUCTS INC - 0000530006
OAKVILLE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		3900	4640	4680	4340	4680	4680	5230	4050	4590	4800	5570	5290	4710	
AMMONIA NITROGEN	ACTUAL	39.9	29.4	25.1	49.2	62.2	48.5	50.2	28.1	31.2	40	82.2	106.1	49.3	6
	REQUIREMENT	39	46.4	46.8	43.4	46.8	46.8	52.3	40.5	45.9	48	55.7	52.9	47.1	
pH		0	0	0	0	0	0	0	0	0	0	0	0		
PHENOLS	ACTUAL	0.05	0.19	0.24	0.13	0.1	0.11	0.11	0.08	0.1	0.14	0.19	0.72	0.18	10
	REQUIREMENT	0.078	0.093	0.094	0.087	0.094	0.094	0.105	0.081	0.092	0.096	0.111	0.106	0.094	
SUSPENDED SOLIDS	ACTUAL	27.7	41.5	43.4	68.2	99	111	108	65.7	76.1	84.5	66.7	70.51	71.8	7
	REQUIREMENT	58.5	69.6	70.2	65.1	70.2	70.2	78.5	60.7	68.9	72	83.6	79.4	70.7	
OIL AND GREASE	ACTUAL	3.1	12.3	5.3	3.5	3.8	3.5	4.9	3.5	4.4	4.2	4.7	10.1	5.3	
	REQUIREMENT	39	46.4	46.8	43.4	46.8	46.8	52.3	40.5	45.9	48	55.7	52.9	47.1	
SULPHIDES	ACTUAL	2.2	2.54	2.7	2.5	2.7	2.8	3.3	2.7	2.7	2.8	3.3	3.6	2.82	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Petrosar Ltd. Corunna

INDUSTRIAL ACTIVITY: Petroleum Refining

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Primary function to provide feedstock for Dupont, Polymer and Union Carbide.

EFFLUENT QUALITY: Contains insoluble and soluble compounds from crude oil at trace levels

EFFLUENT TREATMENT: Tertiary treatment diffused outfall.

DISCHARGE TYPE: continuous through a submerged diffuser

COMMENTS:

Phenols not in compliance, January to March.
Improved sources separation and optimization of treatment system have corrected exceedance of phenols.
High recycled re-useage of water. Low flow discharge.

IMIS NUMBER: 0000480004 SIC CODE: 3651 MOE REGION: Southwest DISTRICT: Sarnia

d0886

PETROSAR LTD - 0000480004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		7410	6550	7230	6180	6090	6770	6180	7140	7270	6360	6180	5590	6590	
AMMONIA	ACTUAL	13	18	19	29	20	10	8	_	8	9	12	13	14.5	
NITROGEN	REQUIREMENT	74.1	65.5	72.3	61.8	60.9	67.7	61.8	71.4	72.7	63.6	61.8	55.9	65.9	
PHENOLS	ACTUAL	0.29	0.17	0.26	0.07	0.03	0.07	0.03	_	0.06	0.05	0.06	0.06	0.105	3
	REQUIREMENT	0.148	0.133	0.145	0.123	0.121	0.134	0.121	0.142	0.144	0.126	0.123	0.111	0.131	
SUSPENDED	ACTUAL	62	53	64	54	50	25	58	_	13	35	38	29	43.7	
SOLIDS	REQUIREMENT	111	98.3	109	92.7	102	161	92.7		110	95.4	92.7	83.9	98.9	
OIL AND GREASE	ACTUAL	18	15	31	12	11	6	5	_	7	7	3	7	11.1	
	REQUIREMENT	74.1	65.5	72.3	61.8	60.9	67.7	61.8	71.4	72.7	63.6	61.8	55.9	65.9	
TOTAL CARBON	ACTUAL	82	67	122	70	67	61	60	_	53	170	46	73	79.2	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Polysar Ltd. Sarnia

INDUSTRIAL ACTIVITY: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Feedstock from refineries in the Sarnia area are converted into several grades of synthetic rubber

EFFLUENT QUALITY: Contains a variety of organics including chlorinated compounds

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through five outfalls

COMMENTS:

In compliance.

IMIS NUMBER: 0000030007 SIC CODE: 162 373 MOE REGION: Southwest DISTRICT: Sarnia

d0886

POLYSAR LTD. - 0000030007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		230000	261000	257000	250000	241000	269000	261000	256000	256000	240000	246000	254000	252000	
AMMONIA NITROGEN	ACTUAL	264	197	192	356	290	230	350	95.4	125	64	157	142	205	
	REQUIREMENT	2300	2610	2570	2500	2410	2690	2610	2560	2560	2400	2460	2540	2520	
PHENOLS	ACTUAL	0.68	1.14	1.3	1.23	1.14	1.31	0.58	0.9	0.522	0.91	0.372	0.366	0.87	
	REQUIREMENT	4.6	5.22	5.14	5	4.82	5.38	5.22	5.12	5.12	4.8	4.92	5.08	5.04	
pH		8.4	8.3	8.1	8.1	7.9	8.2	8.2	8.2	8.2	8.1	8.1	8.2		
SUSPENDED SOLIDS	ACTUAL	765	1350	559	2300	1610	1780	141	674	938	2850	3060	1800	1486	
	REQUIREMENT	3450	3915	3855	3750	3615	4035	3915	3840	3840	3600	3690	3810	3780	
OIL AND GREASE	ACTUAL	30	27	53	134	86	75	10	20	19	35	55	77	51.8	
	REQUIREMENT	3450	3915	3855	3750	3615	4035	3915	3840	3840	3600	3690	3810	3780	
TOTAL CARBON	ACTUAL	1400	1283	1510	1770	1290	1020	612	543	650	1460	906	1960	1200	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

d1186

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Reichhold Chemicals Ltd. Thunder Bay

INDUSTRIAL SECTOR: Organic chemicals, Synthetic fibres

RECEIVING WATERBODY: DIRECT: Kaministiquia River

INDIRECT: 7 km to Lake Superior (Thunder Bay)

DESCRIPTION OF ACTIVITY: Phenolic chemicals

EFFLUENT QUALITY: Contains low levels of phenolic compounds

EFFLUENT TREATMENT: Secondary activated sludge.

DISCHARGE TYPE: continuous surface

COMMENTS:

Phenols and Suspended Solids not in compliance.
Company plans to discharge to municipal sewer system once sewer lines are extended.
* Phenolic requirement 1 mg/l in Certificate of Approval; Suspended Solids guideline 15 mg/l.
The final effluent was sampled 5 times during 1985 and tested by aerated 96-hr. rainbow trout bioassay.
Three of the LC50's were 45.6%; the remaining two were 22.6 and 27.3%.
An additioanl clarifier was added in 1985 and effluent recirculation is used to reduce Suspended Solids in the discharge.
The Ministry is working with the Company to further reduce the Suspended Solids.

IMIS NUMBER: 0001830009 SIC CODE(S): 3783 MOE REGION: Northwest DISTRICT: Thunder Ba

d0886

REICHHOLD LTD - 0001830009

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		283	296	359	387	387	382	307	249	267	256	288	338	317	
pH		8.1	7.9	7.8	7.8	7.9	7.9	8	7.8	8.1	8.2	8.1	8.2		
PHENOLS	ACTUAL	0.0051	0.0087	0.0141	0.0155	0.0077	0.0076	0.0031	0.0025	0.0027	0.0042	0.005	0.0063	0.0069	3
mg/L	REQUIREMENT	0.007	0.006	0.007	0.008	0.008	0.008	0.006	0.005	0.005	0.005	0.006	0.007	0.006	
PHOSPHATES	ACTUAL	0	0.021	0	0	0	0	0.034	0.311	0.027	0.649	0.006	0.157	0.1	
TOTAL	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED	ACTUAL	130	150	190	160	110	120	100	90	70	50	47	64	107	12
SOLIDS	REQUIREMENT	4.25	4.44	5.39	5.81	5.81	5.73	4.61	3.74	4.01	3.84	4.32	5.07	4.76	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Rio Algom Ltd. (Panel Mill) Elliot Lake

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Quirke Lake to Serpent River INDIRECT: 65 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Ore is mined, milled and separated into tailings and concentrates.

EFFLUENT QUALITY: Contains metal salts, ammonia compounds, and radioactive materials

EFFLUENT TREATMENT: Addition of barium chloride and lime followed by releasing effluent into a polishing pond.

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance with AECB licensing requirements.
Radioactivity limit was set by Canada's Atomic Energy Control Board.

IMIS NUMBER: 0001670207 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste. Marie

d0886

RIO ALGOM LTD - 0001670207
(Panel Mill)
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM UNITS IN BEQUERRELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		10720	9430	9380	1390	12100	9750	8104	6690	6690	7470	7930	8350	8160	
pH		8.3	8.1	8.6	7.8	8.2	8.1	7.9	7.5	7.7	7.9	7.8	8.1		
RADIUM 226 FILTERED	ACTUAL	0.107	0.1	0.124	0.119	0.134	0.13	0.073	0.081	0.073	0.149	0.17	0.163	0.119	
	REQUIREMENT	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	
RADIUM 226 TOTAL	ACTUAL	0.249	0.317	0.272	0.444	0.278	0.169	0.221	0.123	0.101	0.183	0.26	0.238	0.245	
	REQUIREMENT														
COPPER TOTAL	ACTUAL	0.096	0.09	0.094	0.02	0.38	0.11	0.05	0.07	0.07	0.07	0.07	0.07	0.09	
	REQUIREMENT	6.4	5.66	5.63	0.83	7.26	5.85	4.86	4.01	4.01	4.48	4.76	5.01	4.9	
IRON TOTAL	ACTUAL	6.11	0.66	1.97	0.26	1.82	1.27	0.24	0.87	0.13	0.22	0.4	0.9	1.14	
	REQUIREMENT	10.7	9.43	9.38	1.39	12.6	9.75	8.1	6.69	6.69	7.47	7.93	8.35	8.16	
NICKEL TOTAL	ACTUAL	0.27	0.21	0.188	0.04	0.05	0.15	0.18	0.19	0.17	0.29	0.28	0.23	0.22	
	REQUIREMENT	10.7	9.43	9.38	1.39	12.1	9.75	8.1	6.69	6.69	7.47	7.93	8.35	8.16	
LEAD TOTAL	ACTUAL	0.12	0.66	0.3	0.04	0.06	0.24	0.32	0.42	0.12	0.37	0.23	0.25	0.27	
	REQUIREMENT	4.29	3.77	3.75	0.556	4.84	3.9	3.24	2.68	2.68	2.99	3.17	3.34	3.26	
SUSPENDED SOLIDS	ACTUAL	10.7	18.9	9.38	1.39	12.1	9.75	16.2	6.69	6.69	14.9	15.9	16.7	8.14	
	REQUIREMENT	161	142	141	20.9	182	146	122	100	100	112	119	125	122	
ZINC TOTAL	ACTUAL	0.15	0.12	1.03	0.02	0.17	0.09	0.05	0.05	0.05	0.07	0.13	0.18	0.1	
	REQUIREMENT	10.7	9.43	9.38	1.39	12.1	9.75	8.104	6.69	6.69	7.47	7.93	8.35	8.16	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Rio Algom Ltd. (Quirke Mill) Elliot Lake

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Serpent River

INDIRECT: 67 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Ore is mined, milled and separated into tailings and concentrates. Ammonia - based compounds are used in the recovery of uranium.

EFFLUENT QUALITY: Contains dissolved metal salts, ammonia compounds, and radioactive materials.

EFFLUENT TREATMENT: Treatment consists of settling ponds, barium chloride addition to absorb Radium 226 with lime addition to adjust pH and discharge to river.

DISCHARGE TYPE: Continuous

COMMENTS:

Iron not in compliance.
Out of compliance with respect to AECB license requirements for suspended solids.
Radioactivity limit was set by Canada's Atomic Energy Control Board.

IMIS NUMBER: 0001670108 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste. Marie

d0886

RIO ALGOM LTD - 0001670108
(QUIRKE MILL)
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM UNITS IN BEQUERELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		17400	12100	16900	22500	20700	14100	13000	8740	21200	28200	10500	7540	16100	
pH		8.63	8.46	8.44	8.43	8.32	7.99	7.18	7.68	8.23	7.53	7.78	7.27		
RADIUM 226 FILTERED	ACTUAL	0.186	0.073	0.063	0.054	0.322	0.079	0.072	0.07	0.044	0.037	0.065	0.061	0.099	
	REQUIREMENT	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	
RADIUM 226 TOTAL	ACTUAL	0.234	0.098	0.09	0.108	0.452	0.134	0.109	0.136	0.088	0.091	0.199	0.085	0.152	
	REQUIREMENT														
COPPER TOTAL	ACTUAL	0.26	0.36	0.51	0.65	0.72	0.2	0.23	0.09	0.28	0.34	0.4	0.17	0.35	
	REQUIREMENT	10.4	7.26	10.1	13.5	12.4	8.46	7.8	5.24	12.7	16.9	6.3	4.52	9.66	
IRON TOTAL	ACTUAL	30.71	58.3	87.9	112	33.5	21	61.9	23.5	32.4	46	143	291	111	12
	REQUIREMENT	17.4	12.1	16.9	22.5	20.7	14.1	13	8.74	21.2	28.2	10.5	7.54	16.1	
NICKEL TOTAL	ACTUAL	0.54	0.61	0.76	0.77	0.68	0.25	1.18	0.28	1.31	1.8	1	0.66	0.87	
	REQUIREMENT	17.4	12.1	16.9	22.5	20.7	14.1	13	8.74	21.2	28.2	10.5	7.54	16.1	
LEAD TOTAL	ACTUAL	0.38	0.97	0.68	0.99	0.95	0.16	0.29	0.16	0.68	0.82	0.41	0.14	0.55	
	REQUIREMENT	6.96	4.84	6.76	9	8.28	5.64	5.2	3.5	8.48	11.3	4.2	3.02	6.44	
SUSPENDED SOLIDS	ACTUAL	104	133	152	180	104	70.5	91	43.7	127	197	200	128	145	2
	REQUIREMENT	261	182	254	338	311	212	195	131	318	423	158	113	242	
ZINC TOTAL	ACTUAL	0.4	0.12	0.13	0.79	0.14	0.07	0.77	0.44	1	0.96	0.65	0.41	0.53	
	REQUIREMENT	17.4	12.1	16.9	22.5	20.7	14.1	13	8.74	21.2	28.2	10.5	7.54	16.1	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Rio Algom Ltd. (Stanleigh Mill)

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Serpent River

INDIRECT: Lake Huron

DESCRIPTION OF ACTIVITY: Ore is separated into tailings and concentrates.

EFFLUENT QUALITY: Contains dissolved metal salts and radioactive material.

EFFLUENT TREATMENT: Effluent system consists of settling basin, sequential addition of barium chloride and lime, filtration plant to remove solids.

DISCHARGE TYPE: Continuous

COMMENTS:

Out of compliance with respect to AECB license requirements for iron.

IMIS NUMBER: 0001670306 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste. Marie

d0886

RIO ALGOM LTD - 0001670306
(STANLEIGH MILL)
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM UNITS IN BEQUERELS/LITRE

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		24800	27400	27100	26300	23300	28300	26700	21900	29300	28900	30600	31500	27200	
pH		6.93	7.37	7.53	7.17	7.23	7.49	6.7	6.97	7.5	7.04	6.94	7.6		
RADIUM 226	ACTUAL	0.023	0.046	0.023	0.037	0.037	0.04	0.04	0.037	0.039	0.039	0.046	0.039	0.039	
FILTERED	REQUIREMENT	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	
RADIUM 226	ACTUAL	0.09	0.095	0.129	0.128	0.302	0.157	0.204	0.192	0.218	0.421	0.484	0.574	0.249	
TOTAL	REQUIREMENT														
COPPER TOTAL	ACTUAL	0.37	0.14	1.84	0.18	0.23	0.17	0.16	0.07	0.44	0.43	0.34	0.35	0.38	
	REQUIREMENT	14.9	16.4	16.3	15.8	14	17	16	13.1	17.6	17.3	18.4	18.9	16.3	
IRON TOTAL	ACTUAL	13.1	10.7	14.6	29.7	33.1	9.91	4.81	10.1	18.5	39	54.2	65.8	24.5	5
	REQUIREMENT	24.8	27.4	27.1	26.3	23.3	28.3	26.9	21.9	29.3	28.9	30.6	31.5	27.2	
NICKEL TOTAL	ACTUAL	0.74	0.82	0.49	0.53	0.28	0.28	0.61	0.11	0.62	0.75	0.98	0.91	0.57	
	REQUIREMENT	24.8	27.4	27.1	26.3	23.3	28.3	26.9	21.9	29.3	28.9	30.6	31.5	27.2	
LEAD TOTAL	ACTUAL	0.89	1.1	0.27	0.34	0.4	0.4	0.4	0.33	0.47	0.78	0.49	0.41	0.49	
	REQUIREMENT	9.92	11	10.8	10.5	7.33	11.3	10.7	8.76	11.7	11.6	12.2	12.6	10.9	
SUSPENDED	ACTUAL	74.4	54.8	108	132	210	56.6	134	65.7	147	260	306	347	190	
SOLIDS	REQUIREMENT	372	411	407	395	350	425	401	329	440	434	459	473	408	
ZINC TOTAL	ACTUAL	0.67	0.55	0.97	1.74	1.02	1.39	1.55	1.27	1.76	2.11	2.39	2.87	1.5	
	REQUIREMENT	24.8	27.4	27.1	26.3	23.3	28.3	26.9	21.9	29.3	28.9	30.6	31.5	27.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Shell Canada Ltd. Corunna

INDUSTRIAL ACTIVITY: Petroleum Refining

RECEIVING WATERBODY: DIRECT: Talford Creek

INDIRECT: St. Clair River

DESCRIPTION OF ACTIVITY: Crude oil is converted into a wide range of petroleum products

EFFLUENT QUALITY: Contains insoluble and dissolved compounds from crude oil at trace levels

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through two outfalls

COMMENTS:

In compliance.

IMIS NUMBER: 0000510107 SIC CODE: 3651 373 MOE REGION: Southwest DISTRICT: Sarnia

d0986

SHELL CANADA LTD - 0000510107
CORUNNA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	212000	206000	214400	227000	230000	257000	289000	299000	279000	262000	238000	226000	
AMMONIA NITROGEN	ACTUAL	18.8	6.89	0	0	0	0	38.1	0	10	0	0	3.6	6.5	
	REQUIREMENT	_	2120	2060	2144	2270	2300	2570	2890	2990	2750	2620	2380	2260	
pH		7.8	7.7	7.75	7.9	7.8	7.75	7.85	8.05	7.4	7.65	7.75	7.45		
PHENOLS	ACTUAL	0.54	0.6	0.47	0.38	0.26	0.1	0.07	0.63	0.3	0.09	0.64	0.12	0.35	
	REQUIREMENT	_	4.24	4.12	4.29	4.54	4.6	5.14	5.78	5.98	5.58	5.24	4.76	4.52	
SUSPENDED SOLIDS	ACTUAL	_	2870	0	139	121	537	1022	0	2190	544	0	1780	767	
	REQUIREMENT		3180	3090	3216	3405	3450	3855	4335	4490	4185	3930	3570	3700	
DISSOLVED SOLIDS	ACTUAL	-	7640	3770	6820	3270	3270	5720	6940	6850	4910	3620	1410	4930	
	REQUIREMENT		_	_	_	_	_	_	_	_	_	_	_	_	
OIL AND GREASE	ACTUAL	0	86	23	142	116	21	234	330	243	36	78	93	117	
	REQUIREMENT	_	2120	2060	2140	2270	2300	2570	2890	2990	2790	2620	2380	2260	
SULPHIDES	ACTUAL	0	0	0	0	0	0	0	0	0	0	4.7	0	0.392	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
TOTAL CARBON		1820	994	0	370	_	_	1150	52.2	_	1360	0	305	671	
		_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Sohio (formerly Canadian Carborundum) Niagara Falls

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Welland River to Niagara River
INDIRECT:

DESCRIPTION OF ACTIVITY: Abrasive oxides are manufactured in electric arc furnaces.

EFFLUENT QUALITY: There are two discharges, both to Welland River; results are composites of all discharges.

EFFLUENT TREATMENT: Process wastewater treatment consists of oil-water separation.

DISCHARGE TYPE: continuous through an outfall

COMMENTS:

Effluent quality met Ministry guidelines for Oil and Grease but exceeded the monthly averages for Suspended Solids. The annual average for Suspended Solids was below the limit.

IMIS NUMBER: 0001660000 SIC CODE: 357 MOE REGION: West Central DISTRICT: Welland

d0886

SOHIO - 0001660000

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		19600	2946	19600	19600	19600	22200	29750	29500	29500	29500	29500	29500	23400	
SUSPENDED	ACTUAL	423	82.5	161	6.48	0	130	64.1	139	348	2.5	0	583	153	3
SOLIDS	REQUIREMENT	294	44.2	294	294	294	333	446	443	443	443	443	443	351	
OIL AND GREASE	ACTUAL	75.8	23.3	8.94	30	0	10.2	4	17.2	28.4	0	0	49.6	23.2	
	REQUIREMENT	294	44.2	294	294	294	333	446	443	443	443	443	443	351	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Stanley Hardware Div. of Stanley Canada Inc., New Hamburg

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT: Nith River to Grand River

INDIRECT: 203 km to Lake Erie

DESCRIPTION OF ACTIVITY: Makes tools, plates hardware, etc.

EFFLUENT QUALITY: Contains heavy metals.

EFFLUENT TREATMENT: Chrome reduction, cyanide destruction, neutralization and sedimentation.

DISCHARGE TYPE: five day continuous flow 7 am to 12:00 pm to a storm sewer

COMMENTS:

Not in compliance.
No suspended solids values are available for April, July, October and November.
The 1985 Ministry limits for cyanide, nickel and zinc are more stringent than the '84 limits.
Discharge quality consistently met limits for pH, chromium and copper, exceeded cyanide and nickel occasionally (yearly average still meeting limits) and exceeded suspended solids most of the year. Zinc exceedances became worse during the last half of the year.
The company increased production by 50% in October '85 and again during spring of 1986.
The company has committed itself to zinc and nickel rinse optimization through close looping and reactive concurrent flow rinses, filtration and evaporator system to reduce its wastewater treatment facility loading to meet compliance by March 1987.

IMIS NUMBER: 0001480003 SIC CODE: 301 MOE REGION: West Central DISTRICT: Cambridge

d0886

STANLEY HARDWARE - 0001480003
DIVISION OF STANLEY CANADA INC

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
(FLOW LIMIT 304)

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		209	232	240	240	248	268	270	270	285	290	290	290	261	
CYANIDE	ACTUAL	0.008	0.022	0.047	0.011	0.027	0.035	0.008	0.054	0.0103	0.009	0.011	0.01	0.021	3
	REQUIREMENT	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	
CHROMIUM TOTAL	ACTUAL	0.01	0.019	0.021	0.026	0.025	0.046	0.127	0.055	0.063	0.119	0.103	0.067	0.056	
	REQUIREMENT	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
COPPER TOTAL	ACTUAL	0.01	0.083	0.034	0.064	0.074	0.032	0.034	0.021	0.12	0.096	0.151	0.215	0.078	
	REQUIREMENT	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
NICKEL TOTAL	ACTUAL	0.098	0.181	0.114	0.086	0.092	0.126	0.27	0.084	0.171	0.119	0.154	0.3	0.15	2
	REQUIREMENT	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	
pH		8.5	8.4	8.7	8.5	8.6	8.5	8.8	8.7	8.5	8.8	8.5	8.5	8.58	
SUSPENDED SOLIDS	ACTUAL	2.12	7.65	8.52	_	4.94	7.56	_	11.1	2.9	_	_	7.25	6.5	6
	REQUIREMENT	4.43	4.43	4.43		4.43	4.43		4.43	4.43			4.43	4.43	
ZINC TOTAL	ACTUAL	0.104	0.01	0.122	0.128	0.141	0.142	0.175	0.147	0.188	0.183	0.209	0.319	0.156	5
	REQUIREMENT	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Stelco Inc.
Hilton Works
Hamilton

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Hamilton Harbour
INDIRECT: Lake Ontario

DESCRIPTION OF ACTIVITY: All phases of iron and steel production including coke making, ironmaking, steelmaking and rolling.

EFFLUENT QUALITY: Contains heavy metals and light organics.

EFFLUENT TREATMENT: Recycle, clarification, filtration, oil recovery and ion exchange.

DISCHARGE TYPE: continuous through five shore outfalls

COMMENTS:

Iron, Phenols and Suspended Solids not in compliance.
Control Order requirement for phenol control.
Iron limit is set at 10 mg/L.
Since phosphorous and biochemical oxygen demand are consistently 98% below target loads, these pollutants are not being reported.
Effluent quality requirements for six of the eight pollutants were met (based on monthly averages).
Target loads are set by MOE industrial effluent concentration guidelines.

IMIS NUMBER: 0000950006 SIC CODE: 291 MOE REGION: West Central DISTRICT: Hamilton

d0886

STELCO INC - 0000350006
HAMILTON

ALL LOADS IN KG/DAY
ALL FLOWS IN 1000 CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1055	1028	982	1012	974	1012	1060	1060	1080	1130	1075	1080	1050	
CYANIDE	ACTUAL	30.27	28.6	125	87.1	0*	35.3	34.1	18.1	149	77.1	0*	39.5	52	
	REQUIREMENT	212	206	196	202	195	202	212	212	216	226	215	216	210	
CHEMICAL OXYGEN DEMAND	ACTUAL	15700	5330	40000	16600	2640	6070	7800	4230	13300	3470	12300	12200	11600	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
IRON TOTAL	ACTUAL	3200	4650	11200	3210	898	743	487	582	399	1400	3050	3190	2750	1
	REQUIREMENT	10550	10550	10550	10550	10550	10550	10550	10550	10550	10550	10550	10550	10550	
AMMONIA NITROGEN	ACTUAL	85.8	0*	298	0*	0*	0*	27.3	276	668	1420	456	267	156	
	REQUIREMENT														
pH		7.33	6.98	7.11	7.27	7.82	7.41	7.52	7.6	6.9	7.24	7.37	7.22		
PHENOLS	ACTUAL	14.69	8.73	32.8	25.6	23.1	7.26	16.9	14	79	76.5	46.7	31.8	31.4	7
	REQUIREMENT	21.8	20.64	19.6	20.28	19.6	20.24	21.3	21.3	21.8	22.7	21.5	21.6	21	
SUSPENDED SOLIDS	ACTUAL	11300	13200	62500	11100	5970	6140	13000	7960	7940	13400	12900	20200	15500	2
	REQUIREMENT	15900	15400	14700	15200	14600	15200	15900	15900	16200	17000	16100	16200	15800	
OIL AND GREASE	ACTUAL	3230	2420	6800	4930	1160	1380	171	1210	0*	2190	2970	338	2170	
	REQUIREMENT	15900	15400	14700	15200	14600	15200	15900	15900	16200	17000	16100	16200	15800	
ZINC TOTAL	ACTUAL	156	165	117	168	54.2	22.3	6.19	10.3	24.8	93.2	13	35.7	72.1	
	REQUIREMENT	1055	1028	982	1012	974	1012	1060	1060	1080	1130	1075	1080	1050	

* INTAKE EXCEEDED DISCHARGE

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Stelco Inc. Lake Erie Works Nanticoke

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Centre Creek

INDIRECT: 0.15 km to Lake Erie

DESCRIPTION OF ACTIVITY: Coke ovens with a by-product plant, blast furnace, basic oxygen furnace and a hot strip mill are used to make steel.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Final wastewater treatment consisting of equalization, classification, alkaline, breakpoint, chlorination, filtration and final holding pond.

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

Lead and Iron not in compliance for November. Process cooling water not in compliance for Suspended Solids.
Sewage stabilization pond not in compliance for Suspended Solids.
Treatment and recirculation at source is maximized.
Exceedences in process effluent caused by surface drainage entering into final holding pond.
Requirement for process effluent set by Certificate of Approval.
In the sewage stabilization pond suspended solids exceedances caused by excessive algae growth.
The final effluent was sampled once during 1985 and tested by an aerated 96-hr. rainbow trout bioassay.
The sample was found to have been non-lethal.

IMIS NUMBER: 0000950105 SIC CODE: 291 MOE REGION: West Central DISTRICT: Haldimand-Norfold/Brant

d0886

STELCO INC - 0000950105
LAKE ERIE WORKS (process)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		27700	37200	34100	31200	27500	35500	34400	42200	39000	45500	60600	38500	37800	
CYANIDE AVAILABLE	ACTUAL	1.1	1.1	2.4	0.9	<.5	0.7	0.7	1.3	1.2	1.8	4.2	5.8	0.193	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
CYANIDE FREE	ACTUAL	1.4	1.9	1.7	1.6	<1.4	<1.8	1.4	<2.1	1.6	2.3	3	1.9	1.87	
	REQUIREMENT	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
CADMIUM TOTAL	ACTUAL	_	_	0.17	0.16	_	_	0.17	_	0.19	0.23	0.3	0.23	0.207	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
CHLORINE FREE	ACTUAL	<2.8	3.7	3.4	3.1	<2.7	<3.6	3.8	4.2	3.9	4.6	6.1	3.9	4.078	
	REQUIREMENT	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	
CHROMIUM TOTAL	ACTUAL	0.8	0.7	0.5	0.6	0.5	0.7	0.3	0.8	0.8	0.5	2.4	1.5	0.842	
	REQUIREMENT	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
COPPER TOTAL	ACTUAL	0.55	0.74	0.51	0.31	0.5	0.71	0.34	0.42	0.8	0.9	1.31	0.77	0.647	
	REQUIREMENT	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	
IRON TOTAL	ACTUAL	17.7	32.7	22.2	16.2	9.9	13.8	7.2	22.3	10.1	24.6	63	35.1	22.9	1
	REQUIREMENT	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	
AMMONIA NITROGEN	ACTUAL	3.3	5.2	4.8	3.7	2.7	2.8	2.4	4.6	4.7	10	7.9	5.8	4.83	
	REQUIREMENT	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	
LEAD TOTAL	ACTUAL	2.8	3.3	3.4	1.2	1.6	1.4	1.7	3	2.7	4.6	12.1	9.6	3.95	1
	REQUIREMENT	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	

STELCO INC - 0000950105
LAKE ERIE WORKS (process)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
PHENOLS	ACTUAL	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.05	0.06	0.05	0.0392	
	REQUIREMENT	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	
PHOSPHOROUS	ACTUAL	2.8	3.7	3.4	3.1	_	_	3.4	4.2	3.9	5.5	6.7	3.9		
TOTAL	REQUIREMENT	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	
SUSPENDED	ACTUAL	244	357	283	234	242	210	182	565	417	601	1240	533	455	5
SOLIDS	REQUIREMENT	392	392	392	392	392	392	392	392	392	392	392	392	392	
OIL AND GREASE	ACTUAL	48.5	55.7	75	31.2	<27.5	35.5	34.4	63.2	62.3	81.9	60.6	77.1	52.1	
	REQUIREMENT	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	
ZINC TOTAL	ACTUAL	3	6.7	6.1	4.1	2.5	2.8	1	6.3	0.8	1.8	1.8	2.7	3.3	
	REQUIREMENT	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	

STELCO INC - 3000950105
LAKE ERIE WORKS (Sewage stabilization pond)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	3888	_	_	_	4320	1624	_	_	4493	_	3581	
BIOCHEMICAL OXYGEN	ACTUAL	_	_	22.2	_	_	_	21.6	8.1	_	_	31	_	20.7	
DEMAND	REQUIREMENT			58.3				64.8	24.4			67.4		53.7	
SUSPENDED	ACTUAL	_	_	15.6	_	_	_	121	45.5	_	_	112	_	75.3	3
SOLIDS	REQUIREMENT			58.3				64.8	24.4			67.4		53.7	
PHOSPHOROUS	ACTUAL	_	_	1.5	_	_	_	1.3	0.5	_	_	1.4	_	2.4	
TOTAL	REQUIREMENT			3.89				4.33	1.62			4.49		3.58	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Stelco Page Hershey Works Welland

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Welland Canal

INDIRECT:

DESCRIPTION OF ACTIVITY: Small diameter seamless pipe is made from steel billets.

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous through a diffuser

COMMENTS:

In compliance.

IMIS NUMBER: 0000950303 SIC CODE: 292 MOE REGION: West Central DISTRICT: Welland

d0886

STELCO PAGE HERSHEY - 0000950303

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	_	_	12080	12600	12900	13300	13500	14500	11600	9830	12540	
Ph		8.17	8.14	8.18	8.11	8.1	8.18	8.07	8.2	8.19	8.16	7.96	8.14		
IRON TOTAL	ACTUAL	_	_	_	_	3.62	2.52	2.58	3.6	5.38	5.8	5.8	6.87	4.52	
	REQUIREMENT					12.1	12.6	12.9	13.3	13.5	14.5	11.6	9.83	12.5	
SUSPENDED SOLIDS	ACTUAL	_	_	_	_	26.6	26.5	23.2	41.3	31.05	47.8	31.3	30.5	32.3	
	REQUIREMENT					181	189	194	200	203	218	174	147	188	
OIL AND GREASE	ACTUAL	_	_	_	_	13.3	21.4	12.9	35.9	41.7	40.5	22.04	9.83	24.7	
	REQUIREMENT	_	_	_	_	181	189	194	200	203	218	174	147	188	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Stelco Welland Tube Works, Welland

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: Lyons Creek to Welland River to Niagara River

INDIRECT:

DESCRIPTION OF ACTIVITY: Flat steel is made into very large diameter pipe.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Oil water separation.

DISCHARGE TYPE: continuous through an open outfall

COMMENTS:

In compliance except for Iron in March.

IMIS NUMBER: 0000950204 SIC CODE: 292 MOE REGION: West Central DISTRICT: Welland

d0886

STELCO WELLAND TUBES - 0000950204

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		678	1280	1430	1320	847	956	1260	1000	1440	1150	754	1630	1140	
pH		_	_	8.13	8.2	6.54	6.95	6.95	7.49	7.58	7.62	7.86	7.51		
IRON TOTAL	ACTUAL	_	_	1	0.4	0.34	0.38	0.25	0.5	0.29	0.69	0.151	0.981	0.5	1
	REQUIREMENT			0.87	0.92	0.85	0.96	1.26	1	1.44	1.15	0.75	1.63	1.08	
SUSPENDED SOLIDS	ACTUAL	_	_	10	1.58	10	4.6	8	12.4	11.6	3.6	1.66	3.75	6.72	
	REQUIREMENT			13.1	13.8	12.7	14.3	18.9	15	21.6	17.3	11.3	24.5	16.3	
OIL AND GREASE	ACTUAL	_	_	2.14	5.01	3.64	0.96	2	4.2	4.5	3.6	2.64	1.96	3.07	
	REQUIREMENT	_	_	13.1	13.8	12.7	14.3	18.9	15	21.6	17.3	11.3	24.5	16.3	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: St. Marys Paper Inc. Sault Ste. Marie

INDUSTRIAL SECTOR: Pulp and Paper Mill

OWNERSHIP CHANGED June 1, 1984. Formerly known as: Abitibi Paper Company Ltd.

RECEIVING WATERBODY: DIRECT: St. Mary's River INDIRECT:

DESCRIPTION OF ACTIVITY: Purchased Kraft pulp is added to the pulp made by the stone groundwood process to make paper specialties. Clay line added Dec/84. Now a slush pulp multi-product mill (with no white water return)

EFFLUENT QUALITY: Contains suspended solids (bark, clay, wood) and soluble organic compounds like sugars.

EFFLUENT TREATMENT: Clarifier with scum collector on overflow. Underflow solids are denatured and burned.

DISCHARGE TYPE: Continuous through a submerged diffuser

COMMENTS:

In compliance with conditions of Certificate of Approval.
The final effluent was sampled once during 1985 and tested by an aerated 96-hr. rainbow trout bioassay.
The LC50 was estimated to have been equal to 29.1%.

IMIS NUMBER: 0000860304 SIC CODE(S): 271 MOE REGION: Northeast DISTRICT: Sault Ste. Marie

d0886

ST. MARY'S PAPER INC. - 0000860304

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		26060	29300	29500	29500	29300	31500	31200	27600	28010	25700	25030	26100	28200	
SUSPENDED SOLIDS	ACTUAL	2900	3100	3000	3400	3200	3100	3000	3200	3100	3900	3500	2700	3200	
	REQUIREMENT	5000	5000	5200	4600	5000	5700	4900	5400	5300	5600	5300	5000	5200	
BIOCHEM. OXYGEN DEMAND	ACTUAL	4400	2100	3700	5900	5200	4300	3400	2500	2900	2400	3200	2600	3600	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Strathcona Paper Company, Camden East Twp.

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Napanee River INDIRECT: Lake Ontario (Bay of Quinte)

DESCRIPTION OF ACTIVITY: Wastepaper is repulped to form a paperboard.

EFFLUENT QUALITY:

EFFLENT TREATMENT: Aerated and facultative lagoon. Commercial bacteria added to enhance treatment.

DISCHARGE TYPE: Continuous

COMMENTS:

New flow monitoring installation to be installed in 1987.
Note 1 - Permissable BOD5 loadings are a function of Napanee River flows. Permitted loadings are detailed on Certificate of Approval #4-021-80-005 dated September 4, 1980.

IMIS NUMBER: 0001740000 SIC CODE: 271 MOE REGION: Southeast DISTRICT: Kingston

d0886

STRATHCONA PAPER CO. - 0001740000

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		0	_	_	_	_	_	_	_	_	_	_	_	0	
BIOCHEM. OXYGEN DEMAND	ACTUAL	394	_	609	446	71	164	82	131	241	341	253	618	305	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	135	_	72	82	82	147	108	118	153	186	219	150	132	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Suncor Sunoco Group Sarnia

INDUSTRIAL ACTIVITY: Petroleum Refining

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Crude oil is converted into a wide range of petroleum products.

EFFLUENT QUALITY: Contains soluble and insoluble compounds from crude oil at trace levels

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous at shore

COMMENTS:

Annual compliance. One exceedance of phenols in March, due to reported spill.

IMIS NUMBER: 0000490102 SIC CODE: 3651 MOE REGION: Southwest DISTRICT: Sarnia

d0886

SUNCOR SUNOCO GROUP - 0000490102

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		95000	89000	92000	101000	105000	108000	108000	109000	86000	120000	108000	85100	100570	
CHLORIDES		3160	3000	2240	2400	1640	3320	1940	2250	2140	2780	3000	2950	2570	
AMMONIA	ACTUAL	39	60	31	26	37	0*	33	20	11	1	18	21	23.3	
NITROGEN	REQUIREMENT	950	840	920	1010	1050	1080	1080	1090	860	1200	1080	851	1005	
PHENOLS	ACTUAL	0.43	1.69	2.07	0.64	0.42	0.25	0.3	0.27	1.19	0.25	0.29	0.23	0.67	1
	REQUIREMENT	1.9	1.78	1.84	2.02	2.1	2.18	2.16	2.18	1.72	2.4	2.16	1.7	2.01	
SUSPENDED	ACTUAL	154	228	247	248	162	284	247	167	308	170	266	181	222	
SOLIDS	REQUIREMENT	1425	1335	1380	1515	3080	1620	1620	1635	1290	1800	1620	1280	1508	
DISSOLVED SOLIDS	ACTUAL	6580	8280	8230	6200	3700	6520	7970	8290	11400	6270	7150	6280	7240	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
OIL AND GREASE	ACTUAL	42	55	68	36	46	54	20	19	132	0*	46	15	44.1	
	REQUIREMENT	950	890	920	1010	1050	1080	1080	1090	860	1200	1080	851	1005.7	
SULPHIDES	ACTUAL	0	0	0	0	0	0	0.2	0	0	4.9	0*	0	0.308	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL CARBON		256	275	141	72	114	128	212	83	204	287	180	455	201	
		-	-	-	-	-	-	-	-	-	-	-	-	-	

d1186 * INTAKE EXCEEDED DISCHARGE

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Tend-R-Fresh Div. Maple Leaf Mills Poultry Products Inc., Petersburg

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: Alder Creek to Nith River to Grand River

INDIRECT: 195 km to Lake Erie

DESCRIPTION OF ACTIVITY: Birds are slaughtered, processed, readied for retail sale.

EFFLUENT QUALITY: Contains dissolved organics and phosphorous.

EFFLUENT TREATMENT: Screening, aeration, phosphorous removal, sedimentation and chlorination.

DISCHARGE TYPE: seven day continuous flow through an open outfall

COMMENTS:

Not in compliance.
The 1985 limits are more stringent than the 1984 limits.
Discharge quality did not meet limits. Company received Ministry approval in August '85 to upgrade its wastewater treatment plant by adding new influent screen, changing one aeration cell to an aerobic digester, adding phosphorous removal and converting a facultative lagoon to a sludge drying/storing facility. Upgrading program was completed in May '86.
Discharge has been in compliance since then.

IMIS NUMBER: 0001490002 SIC CODE: 1012 MOE REGION: West Central DISTRICT: Cambridge

d0886

TEND-R-FRESH DIVISION - 0001490002
MAPLE LEAF MILLS POULTRY PRODUCTS LTD

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
(FLOW LIMIT 2272)

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		669	1230	1460	1580	1410	1410	1410	1410	1410	1410	1630	1630	1390	
BIOCHEM. OXYGEN DEMAND	ACTUAL	3.9	51.1	512	411	6.4	14.8	82.5	41	9.6	5.2	14.9	11.2	97	5
	REQUIREMENT	32	32	32	32	32	32	32	32	32	32	32	32	32	
pH		6.75	6.75	7.15	6.75	7.3	_	7.5	7.1	7.5	7.5	7.4	7.1		
PHOSPHORUS TOTAL	ACTUAL	2.9	7	9.6	12.3	9.7	8	7.1	13.8	6.2	4.4	1.95	3.2	7.18	12
	REQUIREMENT	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
SUSPENDED SOLIDS	ACTUAL	15.1	221	330	347	268	28.3	64.3	59.3	19.8	16.9	19.5	27.6	118	6
	REQUIREMENT	32	32	32	32	32	32	32	32	32	32	32	32	32	
OIL AND GREASE	ACTUAL	11.7	43.4	216	124	22.9	19.4	37.9	35.3	25.8	22.6	50.1	60.5	55.8	8
	REQUIREMENT	24	24	24	24	24	24	24	24	24	24	24	24	24	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Texaco Canada Inc. (Nanticoke Refinery) Jarvis

INDUSTRIAL SECTOR: Petroleum Refining

RECEIVING WATERBODY: DIRECT: Lake Erie

INDIRECT:

DESCRIPTION OF ACTIVITY: Crude oil is converted into a wide range of petroleum products.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary oil separation, equalizarion, dissolved air flotation, biological treatment, clarification and filtration, and final holding ponds.

DISCHARGE TYPE: continuous through a submerged diffuser

COMMENTS:

In compliance.
Degree of air cooling is maximized.

IMIS NUMBER: 0000520205 SIC CODE: 3651 MOE REGION: West Central DISTRICT: Haldimand-Norfolk/Brant

d0886

TEXACO CANADA INC - 0000520205
NANTICOKE REFINERY

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
CONTL PT 0200															
FLOW		3570	3240	3560	3980	3780	3040	2220	2840	2500	2160	3490	3970	2950	
AMMONIA	ACTUAL	1.16	10.2	0.45	0	0.53	0.64	0.063	0.19	0.76	0.17	0.67	0.55	1.28	
NITROGEN	REQUIREMENT	35.7	32.4	35.6	39.8	37.8	30.41	22.2	28.4	25	21.6	34.9	39.7	29.5	
PHENOLS	ACTUAL	0.018	0.027	0.032	0.023	0.027	0.027	0.0046	0.0091	0.0091	0.0046	0.014	0.0091	0.017	
	REQUIREMENT	0.0714	0.0648	0.0712	0.0796	0.0756	0.0608	0.044	0.0568	0.05	0.0432	0.0698	0.0794	0.0597	
SUSPENDED	ACTUAL	0	0	0	0	13.3	12.7	3.09	17.7	6.51	0	0	0	3.81	
SOLIDS	REQUIREMENT	53.6	48.6	53.4	59.7	56.7	45.6	33.3	42.6	37.5	32.4	52.4	59.6	44.3	
OIL AND GREASE	ACTUAL	0	0	5.5	0	3.59	3.96	0.164	2.3	2.96	2.62	4.09	0	2.1	
	REQUIREMENT	35.7	32.4	35.6	39.8	37.8	30.4	22.2	28.4	25	21.6	34.9	39.7	32	
SULPHIDES	ACTUAL	0	0.146	0	0	0	0.009	0.123	0.445	0	0.036	0	0	0.063	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Texaco Canada Ltd
& PLANT LOCATION: Port Credit

INDUSTRIAL SECTOR: Petroleum Refinery

RECEIVING WATERBODY: DIRECT : Lake Ontario

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Primary (API separator and settling pond).

DISCHARGE TYPE: Continuous

COMMENTS:

Phenols and Suspended Solids not in compliance.
Decommissioning of refinery has resulted in batch discharges of high strength wastes to the treatment plant. Flushing of pipelines and process equipment should be completed in early 1987.

IMIS NO.: 0000520106 SIC CODE: 365 MOE REGION: Central DISTRICT: Halton-Peel

d0886

TEXACO CANADA INC - 0000520106
MISSISSAUGA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		6810	6810	6810	6810	6810	6810	6810	6810	6810	6810	6810	6810	6810	
CHEMICAL OXYGEN DEMAND	ACTUAL	57.8	44.9	225	61.3	64.7	52.1	57.9	91.9	64.7	17.03	74.9	13.6	68.8	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	
AMMONIA NITROGEN	ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	
	REQUIREMENT	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	
PHENOLS	ACTUAL	0.14	0.23	0.4	0.068	0.54	0.19	0.04	0.12	0.102	0.014	0.12	0.05	0.168	5
	REQUIREMENT	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	
SUSPENDED SOLIDS	ACTUAL	109	162	–	105	68.1	95.3	81	174	78.3	30.7	34.1	57.9	90.5	4
	REQUIREMENT	102	102		102	102	102	102	102	102	102	102	102	102	
OIL AND GREASE	ACTUAL	10.23	17.1	6.8	6.8	13.6	6.8	6.8	10.2	6.8	44.3	6.8	10.2	12.2	
	REQUIREMENT	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	
SULPHIDES	ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	
	REQUIREMENT	–	–	–	–	–	–	–	–	–	–	–	–	–	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: The Algoma Steel Corporation Ltd. Sault Ste. Marie

INDUSTRIAL SECTOR: Iron and Steel

RECEIVING WATERBODY: DIRECT: St. Mary's River

INDIRECT: East Davignon Creek

DESCRIPTION OF ACTIVITY: Iron (blast furnaces & foundry) and steel from coal (coke) and iron concentrates/pellet.

EFFLUENT QUALITY: Contains suspended solids (coal, iron, rust) and coal tar compounds (ammonia, cyanide oil and grease, phenols)

EFFLUENT TREATMENT: Clarifiers, settling basins and brill skimmers.

DISCHARGE TYPE: continuous; 7 outfalls; terminal basin discharges through a submerged diffuser

COMMENTS:
The existing Control Order issued in June, 1982 and amended in June, 1983 establishes the following abatement schedule and limits:
Terminal Basin - Mar. 31, 1987 Sulphides 0.2 mg/L; Ammonia and cyanide limited in combination based on toxicity considerations
- Mar. 31, 1988 Solvent Extractables 2727 kg/day; susp. solids 8750 kg/day
- Jun. 30, 1989 Phenolics 22.7 kg/day
- Mar. 31, 1990 Solvent Extractables 1364 kg/day; susp. solids 6136 kg/day

24" Cold Mill Sewer- April 5, 1986 Susp. Solids 15 mg/L; Solvent Extractables 15 mg/L; Dissolved Iron 1 mg/L

IMIS NUMBER: 0000040006 SIC CODE(S): 291 292 298 MOE REGION: Northeast DISTRICT: Sault Ste. Marie

d0886

THE ALGOMA STEEL CORP LTD - 0000040006
TOTAL COMPLEX
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		509600	509600	510100	498700	514700	510100	499200	509600	798700	506000	504600	504600	506300	
CYANIDE FREE	ACTUAL	62	80	71	55	61	43	33	51	115	100	80	96	70.6	
	REQUIREMENT														
CHEMICAL OXYGEN DEMAND	ACTUAL	12300	7480	17030	9220	11400	12300	15500	20062	9630	30850	15800	15100	14700	
	REQUIREMENT														
IRON TOTAL	ACTUAL	3923	5169	5221	5547	4288	5076	3593	2854	2703	4597	2226	4053	4104	
	REQUIREMENT														
NH3 - NITROGEN	ACTUAL	2860	4550	4710	3200	4370	2920	2520	3250	3280	5260	5230	5890	4002	
	REQUIREMENT														
pH		8.2	8.4	8.2	8	8.3	8.1	8.1	8.3	7.9	7.8	7.9	7.8		
PHENOLS	ACTUAL	106	103	68.2	99.2	172	102	66.2	68.2	96.3	98.3	103	137	102	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	42500	45400	51600	46000	52100	55600	45000	41400	41700	48200	49700	46900	47175	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	7320	8620	9280	9890	11800	9240	7120	7650	7210	7250	10077	7520	8580	
	REQUIREMENT														
OIL AND GREASE	ACTUAL	1570	2330	1720	1540	1630	3016	2180	2980	1780	1490	815	1550	1880	
	REQUIREMENT														
SULPHIDES	ACTUAL	44	82	48	30	31	34	30	31	29	33	34	134	46.7	
	REQUIREMENT														
SULPHATES TOTAL	ACTUAL	1012	1440	2220	1620	1860	1560	1020	1560	1043	696	2300	974	1440	
	REQUIREMENT														
ZINC TOTAL	ACTUAL	4	4	7	8	2	8	8	10	7	8	33	8	8.9	
	REQUIREMENT														

THE ALGOMA STEEL CORP LTD - 0000040006
(TERMINAL BASIN)
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		340500	340000	340500	329000	345000	340500	329600	340000	320000	328200	342800	342800	336700	
CYANIDE FREE	ACTUAL	58	78	68	53	59	37	20	31	64	69	69	69	86	
	REQUIREMENT														
CHEMICAL OXYGEN DEMAND	ACTUAL	12300	7480	17030	9220	11400	12300	15500	20062	9630	30850	15800	15100	14700	
	REQUIREMENT														
IRON TOTAL	ACTUAL	3610	4490	4840	3720	3690	4530	2930	2520	2150	3680	1650	3330	3430	
	REQUIREMENT														
AMMONIA NITROGEN	ACTUAL	2830	4520	4670	3160	4310	2860	2470	3200	3210	5190	5180	5860	3950	
	REQUIREMENT														
pH		8.4	8.7	8.3	7.9	8.5	7.9	7.8	8	8.4	8.6	8.7	8.7	8.3	
PHENOLS	ACTUAL	102	102	68	99	172	102	66	68	96	98	103	137	101	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	29300	34700	38800	32600	38300	41500	35300	29900	31500	33700	28800	32900	34300	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	6470	7480	8170	7900	8700	7830	5270	6120	5780	5910	5830	5830	6770	
	REQUIREMENT														
OIL AND GREASE	ACTUAL	1360	2040	1360	1320	1380	2720	1980	2720	1610	1310	686	1370	1650	
	REQUIREMENT														
SULPHIDES	ACTUAL	44	82	48	30	31	34	30	31	29	33	34	134	46.7	
	REQUIREMENT														

THE ALGOMA STEEL CORP LTD - 0000040006
(24 INCH COLD MILL ACID SEWER)
ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		10910	10910	10910	10910	10910	10910	10910	10910	9547	9547	9547	9547	10456	
pH		6.9	6.6	6.6	5.8	6.2	5.8	6.5	6.7	5.7	5	6.3	6.2		1
SUSPENDED SOLIDS	ACTUAL	98	131	120	175	185	196	240	295	181	115	162	143	167	
	REQUIREMENT														
OIL AND GREASE	ACTUAL	65	207	196	131	131	142	120	98	76	86	48	86	115	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: The Canada Starch Co. Ltd.
800 James Street
Cardinal

INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT: St. Lawrence River

INDIRECT:

DESCRIPTION OF ACTIVITY: Wet milling & oil refining processes

EFFLUENT QUALITY: Contains soluble organics, insoluble organics and phosphorous.

EFFLUENT TREATMENT: Aerated cell.

DISCHARGE TYPE: Continuous

COMMENTS:

COD and Suspended Solids not in compliance.
Requirement Direction approved for serving. Notice scheduled to be served on November 27, 1986 with requirements of 25 mg/L for BOD5 and Suspended Solids, and 1 mg/L for phosphorous.

IMIS NUMBER: 0001720002 SIC CODE: 106 1083 1089 MOE REGION: Southeast DISTRICT: Kingston

d0886

THE CANADA STARCH CO. INC. - 0001720002
CARDINAL

ALL LOADS IN KG/DAY
ALL FLOWS IN THOUSAND CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		29.4	29.4	29.5	29.4	29.4	29.4	29.9	30.8	30.8	31.2	31.8	30.2	30.1	
CHEMICAL OXYGEN DEMAND	ACTUAL	1598	1315	1715	605	812	542	887	548	720	792	2107	1938	1130	12
	REQUIREMENT	*	*	*	*	*	*	*	*	*	*	*	*	*	
SUSPENDED SOLIDS	ACTUAL	406	705	553	852	714	480	503	528	484	1090	1130	984	702	12
	REQUIREMENT	73.5	73.5	73.7	73.5	73.5	73.5	75	75.1	75.1	78	79.5	75.3	75.2	

* Requirement of 25 mg/L BOD5 to be reported as COD when ratio of BOD:COD has been established.

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: The Canadian Salt Company Ltd. Windsor

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT: Detroit River

INDIRECT: Lake Erie

DESCRIPTION OF ACTIVITY: Salt is mined and prepared for use.

EFFLUENT QUALITY: Contains dissolved salt (chlorides).

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous

COMMENTS:

Suspended Solids not in compliance.
Company met monthly requirements for TSS nine out of 12 times.
Sampling survey is to be conducted by M.O.E.

IMIS NUMBER: 0001040005 SIC CODE: 079 793 MOE REGION: Southwest DISTRICT: Windsor

d0886

THE CANADIAN SALT CO. LTD - 0001040005

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		16900	17700	15900	22400	22000	22600	21200	21400	24000	21700	24300	22000	21000	
ALKALINITY AS CaCO3	ACTUAL	12		8	63	83.4	86	7	12	31	3	1	10	28.8	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
CHLORIDE	ACTUAL	11200	20200	13400	19300	15400	14100	16600	11300	13000	8970	9930	8110	13500	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
pH		8.3	8.35	7.8	7.95	8.3	8.25	8.25	8.1	7.95	7.75	7.95	7.8		
DISSOLVED SOLIDS	ACTUAL	19900	32900	21500	31200	26100	23700	31100	20700	21200	14600	19500	15000	23100	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	258	286	115	-	42	11	252	241	569	309	318	364	251	3
	REQUIREMENT	270	266	239		330	339	318	321	360	326	365	330	315	
TOTAL SOLIDS	ACTUAL	20100	33100	21600	31200	26200	23700	31400	20900	21700	15000	19800	15400	23300	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: The Ontario Paper Company Ltd.
Allanburg
Thorold

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Twelve Mile Creek
INDIRECT: 12.4 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Newsprint is made from pulp from logs by three pulping processes (sulphite, thermal-mechanical and chemi-mechanical) and from deinked newspaper pulp.

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: continuous into a buried part of the Old Welland Canal

COMMENTS:

In compliance.
Effluent quality meets Ministry guidelines.
The final effluent was sampled once during 1985 and tested by an aeraed 96-hr. rainbow trout bioassay. The sample was found to have been non-lethal. Effluent toxicity complies with Federal Fisheries Act regulations, more than 50% of fish survived in undiluted effluent.

IMIS NUMBER: 0000930008 SIC CODE: 271 MOE REGION: West Central DISTRICT: Welland

d0886

THE ONTARIO PAPER CO. LTD - 0000930008

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		106100	105100	107100	114300	115000	115000	122800	130500	125500	125500	111500	102800	115100	
BIOCHEM. OXYGEN DEMAND	ACTUAL	14300	10700	12600	14100	13400	13600	13000	12000	13300	12300	10700	13800	12800	
	REQUIREMENT	18140	18140	18140	18140	18140	18140	18140	18140	18140	18140	18140	18140	18140	
DISSOLVED SOLIDS	ACTUAL	66400	56400	54600	54500	55900	79700	51600	58000	60900	50500	43600	63800	58000	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	5900	6700	4200	5600	5700	6000	5900	5300	5200	5100	3300	3800	5230	
	REQUIREMENT	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Trent Valley Paperboard Mills, Trenton

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT: Trent River

INDIRECT: Lake Ontario (Bay of Quinte)

DESCRIPTION OF ACTIVITY: Wastepaper is repulped to form a paperboard.

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Majority of effluent receives clarification prior to discharge.

DISCHARGE TYPE: Intermittent

COMMENTS:

Not in compliance.
Suspended solids effluent objectives of 140 kg/day as set out in Certificate of Approval presently under review. BOD requirement also being developed on basis of receiving water effluent impact.

IMIS NUMBER: 0001750009 SIC CODE: 271 MOE REGION: Southeast DISTRICT: Kingston

d0886

TRENT VALLEY PAPERBOARD MILLS - 0001750009

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2570	2078	2500	3054	3340	3220	2810	1610	6820	7100	2170	2290	2250	
BIOCHEM. OXYGEN DEMAND *	ACTUAL	-	-	-	-	-	2730	1918	1573	596	728	2634	2627	1830	7
	REQUIREMENT						161	141	81	341	355	109	115	113	
SUSPENDED SOLIDS	ACTUAL	815	644	800	864	1790	1350	1260	729	3170	2500	560	568	828	12
	REQUIREMENT	140	140	140	140	140	140	140	140	140	140	140	140	140	
DISSOLVED SOLIDS	ACTUAL	1870	2190	2440	3700	3080	3160	3020	1600	575	577	2670	2170	2250	
	REQUIREMENT														

* Based on assumed BOD objective of 50 mg/L

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Union Carbide Canada Ltd. Corunna

INDUSTRIAL ACTIVITY: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT: St. Clair River

INDIRECT:

DESCRIPTION OF ACTIVITY: Feedstock from neighbouring petroleum refineries is converted into polyethylene resins.

EFFLUENT QUALITY: Contains organic compounds at trace levels

EFFLUENT TREATMENT:

DISCHARGE TYPE: batch discharge through an extended outfall

COMMENTS:

Phosphorous and Suspended Solids not in compliance.
Exceedances in suspended solids suspected to be clay from final effluent pond.
Item currently under investigation.

IMIS NUMBER: 0000380105 SIC CODE: 373 MOE REGION: Southwest DISTRICT: Sarnia

d0886

UNION CARBIDE CANADA LTD - 0000380105

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1900	2260	_	2020	1870	2160	2060	2040	2230	2620	2780	2080	2180	
KJELDAHL NITROGEN	ACTUAL	5.7	4.5	_	2.07	10.5	2.1	1.3	2.3	2.1	2.9	2.4	_	3.36	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
pH		7.1	7	_	7.9	7.8	7.5	7.7	7.8	7.2	7.8	7.5	7.4	7.5	
PHOSPHORUS TOTAL	ACTUAL	0.53	2.4	_	1.53	1.53	1.19	1.15	3.06	1.07	1.1	1.36	1.64	1.5	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	485	631	_	606	539	551	492	487	392	524	515	651	534	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED SOLIDS	ACTUAL	42.6	49.1	_	18.4	67	_	34.6	77.3	46.2	61.8	83.5	108	58.8	9
	REQUIREMENT	28.5	33.9		30.3	28.05		30.9	30.6	33.5	39.3	41.7	31.2	33	
TOTAL CARBON	ACTUAL	27.6	23.5	_	21.1	13.7	24.8	37	43.8	51.8	15.3	31.7	15	27.7	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Wickes Manufacturing Company Ltd.
& PLANT LOCATION: (Formerly Windsor Bumper Co. Ltd.)
Windsor

INDUSTRIAL SECTOR: Metalwork manufacturing

RECEIVING WATERBODY: DIRECT : 3.3 km from Little R.

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

Nickel and Suspended Solids not in compliance.
Company is examining alternatives for final treatment (filtration) of effluent.
The final effluent was sampled 2 times during 1985 and tested by aerated 96-hr. rainbow trout bioassays.
The LC50's were estimated to have been equal to 24.4% and 55.1%.

IMIS NO.: 0001060003 SIC CODE: 304 MOE REGION: Central DISTRICT: Windsor

d0986

WICKES MANUFACTURING CO. LTD - 0001060003
(formerly Windsor Bumper Co. Ltd.)

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		915	1090	1060	993	1070	1320	1220	1540	1240	1020	874	920	1100	
CHROMIUM	ACTUAL	0.6	0.5	0.3	0.3	0.2	0.3	0.5	1.1	0.9	0.9	0.4	0.4	0.533	
	REQUIREMENT	0.915	1.09	1.06	0.993	1.07	1.32	1.22	1.54	1.24	1.02	0.874	0.92	1.1	
CHROMIUM +6	ACTUAL	0.1	0.2	0.06	0.15	0.1	0.1	0.4	0.6	0.4	0.08	0.12	0.18	0.208	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
IRON	ACTUAL	0.2	0.2	0.3	0.2	0.4	0.7	0.7	0.8	0.4	0.5	0.4	0.4	0.433	
	REQUIREMENT	0.915	1.09	1.06	0.993	1.07	1.32	1.22	1.54	1.24	1.02	0.874	0.92	1.1	
NICKEL	ACTUAL	1.1	1.2	0.8	0.9	1.07	1.3	0.9	1.8	1.2	1.2	0.8	0.8	1.09	4
	REQUIREMENT	0.915	1.09	1.06	0.993	1.07	1.32	1.22	1.54	1.24	1.02	0.874	0.92	1.1	
DISSOLVED SOLIDS	ACTUAL	3010	3580	2790	3150	2580	3980	2740	4350	4380	3140	1860	2670	3190	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUSPENDED SOLIDS	ACTUAL	39.5	38.4	28.3	61.7	24.6	36.9	28.2	27.4	36.4	39.9	17.3	27.9	33.9	12
	REQUIREMENT	13.7	16.4	15.9	14.9	16.1	19.8	18.3	23.1	18.6	15.3	13.11	13.8	16.5	
ZINC	ACTUAL	0.05	0.04	0.02	0.03	0.03	0.05	0.02	0.06	0.07	0.1	0.7	0.8	0.164	
	REQUIREMENT	0.915	1.09	1.06	0.993	1.07	1.32	1.22	1.54	1.24	1.02	0.874	0.92	1.1	

Appendix B

Industrial Wastewater Discharge Summary Sheets
(additional sources in the Great Lakes Basin)

Industrial Wastewater Discharge Summary Sheets
(additional sources in the Great Lakes Basin)

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Bakelite Thermosets Ltd.
& PLANT LOCATION: Belleville

INDUSTRIAL SECTOR: Organic Chemicals; Synthetic Fibres

RECEIVING WATERBODY: DIRECT : Bay of Quinte

INDIRECT: Lake Ontario

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY: Contains soluble and insoluble organics such as phenols

EFFLUENT TREATMENT: None

DISCHARGE TYPE: Continuous

COMMENTS:

Discharge consists of cooling water and surface yard runoff.
The accuracy of flow measurement and sampling procedure are suspect. Flow measurement and composite sampling are being investigated. No receiving water impact has been found to date.
Phenols in exceedance.

IMIS NO.: 0001860006 SIC CODE: 373 3783 MOE REGION: Southeast DISTRICT: Kingston

d0886

BAKELITE THERMOSETS LTD - 0001860006

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		8640	8640	8640	8640	7500	7730	7500	8410	8410	8410	7270	7270	8092	
PHENOLS	ACTUAL	0.00173	0.558	0.157	0.204	1.01	0.3	0.136	0.273	0.117	0.142	0.161	0.142	0.267	6
	REQUIREMENT	0.173	0.173	0.173	0.173	0.15	0.154	0.15	0.168	0.168	0.168	0.144	0.144	0.161	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Blackstone Industrial Prods. Ltd.
& PLANT LOCATION: Stratford

INDUSTRIAL SECTOR: Metal, Plastic Fabricating and Finishing

RECEIVING WATERBODY: DIRECT : Avon River

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY: Contains dissolved metals including copper zinc and nickel

EFFLUENT TREATMENT:

DISCHARGE TYPE: Batch

COMMENTS:

In compliance.

IMIS NO.: 0001850007 SIC CODE: 325 MOE REGION: Southwest DISTRICT: London

d0886

BLACKSTONE INDUSTRIAL PRODUCTS LTD - 0001850007

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		836	791	773	727	723	714	614	732	770	732	769	873	751	
pH		8.6	7.96	8.2	7.7	7.73	7.79	7.8	7.7	7.9	7.9	7.4	7.8		
CHROMIUM	ACTUAL	0.0334	0.0475	0.0309	0.0218	0.0217	0.0214	0.0245	0.0512	0.085	0.0439	0.0923	0.0524	0.0432	
	REQUIREMENT	0.836	0.791	0.773	0.727	0.723	0.714	0.614	0.732	0.77	0.732	0.769	0.873	0.751	
COPPER TOTAL	ACTUAL	0.167	0.0949	0.0773	0.0582	0.0867	0.1071	0.0553	0.0732	0.1	0.0439	0.254	0.271	0.125	
	REQUIREMENT	0.836	0.791	0.773	0.727	0.723	0.714	0.614	0.732	0.77	0.732	0.769	0.873	0.751	
LEAD TOTAL	ACTUAL	0.092	0.245	0.155	0.138	0.159	0.114	0.104	0.139	0.177	0.234	0.138	0.0786	0.148	
	REQUIREMENT	0.418	0.396	0.773	0.364	0.362	0.357	0.307	0.366	0.77	0.366	0.385	0.437	0.378	
ZINC TOTAL	ACTUAL	0.167	0.135	0.101	0.145	0.246	0.129	0.197	0.132	0.169	0.264	0.477	_	0.2	
	REQUIREMENT	0.836	0.791	0.773	0.727	0.723	0.714	0.614	0.732	0.77	0.732	0.769		0.751	

WASTEWATER DISCHARGE SURVEY
1985

COMPANY NAME: Campbell Soup Co. Ltd.
& PLANT LOCATION: P.O. Box St. Marys

INDUSTRIAL ACTIVITY: Food and beverage

RECEIVING WATERBODY: DIRECT : 248 km from Thames R. North Branch

INDIRECT:

DESCRIPTION OF ACTIVITY: Poultry and small game dressing

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Diffused outfall to river sludge irrigation on company land

DISCHARGE TYPE: Continuous

COMMENTS:

Biological treatment upgraded 1974
BOD and Suspended Solids not in compliance.
Preliminary meetings have been held with Company officials regarding upgrading.
Sampling program conducted by M.O.E. staff Nov/Dec 1986. Further meeting with Company officials will be scheduled when results of sampling program are available.

IMIS NO.: 0000970004 SIC CODE: 101 MOE REGION: Southwest DISTRICT: London

d0886

CAMPBELL SOUP CO. LTD - 0000970004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2280	2100	2360	2490	2770	2660	2880	2860	2700	2740	2640	2360	2570	
BIOCHEM. OXYGEN DEMAND	ACTUAL	25	42	29	82	37.9	96.8	_	71.5	60	76	27.1	33	48.4	5
	REQUIREMENT	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	
pH		7.6	7.6	7.7	8.1	7.56	7.3	_	7.3	8.1	8.2	_	7.6		
PHOSPHATES TOTAL	ACTUAL	0.7	0.84	0.8	1.13	1.2	1.3	_	1.6	1	1.2	1.2	1	1.09	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED SOLIDS	ACTUAL	55	59	40	1000	45.2	71.3	_	91	65	66	43	39	131.2	7
	REQUIREMENT	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	
DISSOLVED SOLIDS	ACTUAL	1260	1230	1280	2560	1560	1630	_	1550	1650	1610	1400	1100	1530	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Champlain Industries Ltd.
& PLANT LOCATION: Tara

INDUSTRIAL ACTIVITY: Food and Beverage

RECEIVING WATERBODY: DIRECT : Sauble R.

INDIRECT:

DESCRIPTION OF ACTIVITY: Whey is made into whey based products.

EFFLUENT QUALITY: Contains organic compounds such as proteins.

EFFLUENT TREATMENT: Secondary. Oxidation ditch clarifier sludge irrigated onto company land

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance.

IMIS NO.: 0001000108 SIC CODE: 104 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

CHAMPLAIN INDUSTRIES LTD - 0001000108

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		55	55	_	51	58	72.7	72.6	60.01	67.1	70	60	55	56.4	
BIOCHEM. OXYGEN	ACTUAL	0.58	0.43	_	_	0.55	0.91	_	0.64	0.43	0.43	0.15	0.27	0.488	
DEMAND	REQUIREMENT	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	
AMMONIA	ACTUAL	_	_	_	0.15	0.046	0.09	0.063	0.07	0.07	7.9	0.54	0.05	0.998	
NITROGEN	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
pH		8.28	8.31	8.22	8.46	8.13	8	7.92	7.83	7.9	7.7	7.95	7.85		
PHOSPHATES TOTAL	ACTUAL	_	_	_	0.45	0.4	0.49	0.46	0.39	0.38	0.38	0.47	0.26	0.409	
	REQUIREMENT	_	_	_	_	_	_	_	_	_	_	_	_	_	
SUSPENDED	ACTUAL	_	_	_	_	_	_	_	_	0.44	0.44	0.42	0.11	0.353	
SOLIDS	REQUIREMENT	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Chesapeake and Ohio Railway Co. Northern Reg.
& PLANT LOCATION: St. Thomas

INDUSTRIAL ACTIVITY: Wholesale and retail trade

RECEIVING WATERBODY: DIRECT : Kettle Cr.

INDIRECT:

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT: Two oil separation lagoons

DISCHARGE TYPE: Batch

COMMENTS:

In compliance.

IMIS NO.: 0001010008 SIC CODE: 503 MOE REGION: Southwest DISTRICT: London

d0886

CHESAPEAKE AND OHIO RAILWAY CO. - 0001010008

CONCENTRATIONS IN MG/L

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
pH		6.85	6.45	7.3	7.1	7.9	7.3	7	7.2	7	7.9	7.2	8		
OIL AND GREASE	ACTUAL	1.9	2	1.6	2.5	3.5	6.5	5.2	6.2	5.3	2.2	0	3.7	3.38	
	REQUIREMENT	15	15	15	15	15	15	15	15	15	15	15	15	15	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Corby Distilleries Ltd.
& PLANT LOCATION: Corbyville

INDUSTRIAL ACTIVITY: Beverage manufacturer

RECEIVING WATERBODY: DIRECT : Moira R.

INDIRECT: Bay of Quinte, Lake Ontario

DESCRIPTION OF ACTIVITY: Distillery, producing industrial and beverage alcohols.

EFFLUENT QUALITY: Chemical oxygen demand of 120 mg/L and suspended solids of 60 mg/L.

EFFLUENT TREATMENT: Extended aeration activated sludge plant discharging to polishing lagoon and then to Moira River.

DISCHARGE TYPE: Continuous (when operating)

COMMENTS:

Treatment plant operated on an intermittent basis only, during periods of production.
No exceedances based on concentration objectives.

IMIS NO.: 0001870005 SIC CODE: 109 MOE REGION: Southeast DISTRICT: Kingston

d0886

CORBY DISTILLERIES LTD - 0001870005

CONCENTRATIONS IN MG/L
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FIELD pH		_	7	7.4	7.4	_	_	_	_	_	_	_	_		
CHEMICAL OXYGEN DEMAND	ACTUAL		75	68	74										
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL		20	20	31										
	REQUIREMENT														

FLOWS NOT AVAILABLE.

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Denison Mines Ltd. (Williams Lake) (Beaver Pond Outlet) Elliot Lake

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Williams Lake to Beaver Pond to Serpent River

INDIRECT: 70 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Idle tailings area.

EFFLUENT QUALITY: Contains dissolved metal salts and radioactive material.

EFFLUENT TREATMENT: Tailings area runoff is treated with caustic and barium chloride, precipitate settled in Beaver Pond area and effluent discharges to Serpent River.

DISCHARGE TYPE: Continuous

COMMENTS:

Discharge in compliance with AECB license requirements based on annual average, one monthly exceedance in August for Suspended Solids.
The radioactivity limit is that set by Canada's Atomic Energy Control Board.
Treated runoff from an idle tailings area.

IMIS NUMBER: 0001680107 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste.Marie

d0886

DENISON MINES LTD - 0001680107

CONCENTRATIONS IN MG/L
ALL FLOWS IN CUBIC METRES/DAY
RADIUM 226 UNITS IN BEQUERELS/LITRE
pH LIMIT 6.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		518	259	1120	6390	1210	259	259	864	518	1120	1560	259	1190	
pH		9.4	9.1	9.3	9.3	7.6	7.4	7.3	7.9	7.6	7.8	9.3	9	8.4	
RADIUM 226	ACTUAL	0.067	0.114	0.122	0.144	0.111	0.148	0.159	0.162	0.148	0.085	0.078	0.063	0.117	
FILTERED	REQUIREMENT	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	
RADIUM 226	ACTUAL	_	_	0.196	_	_	_	_	0.24	0.207	0.103	0.107	0.156	0.168	
TOTAL	REQUIREMENT														
SUSPENDED	ACTUAL	2		3	3		1	3	38		1	5	2	6.44	1
SOLIDS	REQUIREMENT	15		15	15		15	15	15		15	15	15	15	
ZINC TOTAL	ACTUAL				0.01									0.01	
	REQUIREMENT				1									1	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME & PLANT LOCATION: Denison Mines Ltd. (Stanrock) Elliot Lake

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT: Serpent River

INDIRECT: 60 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Mine is currently closed.

EFFLUENT QUALITY: Contains dissolved metal salts and radioactive material.

EFFLUENT TREATMENT: Tailings area runoffand mine runoff is treated with lime slurry and barium chloride and settled in treatment ponds for later release into river.

DISCHARGE TYPE: Continuous

COMMENTS:

Discharge in compliance with AECB License requirements.
The radioactivity limit is that set by Canada's Atomic Energy Control Board.
Mine is currently closed - not operating.

IMIS NUMBER: 0001680206 SIC CODE(S): 057 MOE REGION: Northeast DISTRICT: Sault Ste.Marie

d1286

DENISON MINES LTD - 0001680206

CONCENTRATIONS IN MG/L
ALL FLOWS IN CUBIC METRES/DAY
RADIUM 226 UNITS ARE IN BEQUERELS/LITRE

pH LIMIT 6.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		2330	2505	4920	15700	5270	3370	1810	2160	2420	5440	8810	2506	4780	
pH		7	7.5	9.7	7.8	9.3	7.6	7.3	7.8	7.4	8	11.2	10.7	8.44	3
RADIUM 226	ACTUAL	0.067	1	0.063	0.07	0.141	0.229	0.237	0.229	0.181	0.125	0.111	0.078	0.211	
TOTAL	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
COPPER TOTAL	ACTUAL				0.01			0.01						0.01	
	REQUIREMENT				0.6			0.6						0.6	
NICKEL TOTAL	ACTUAL							0.02			0.04			0.03	
	REQUIREMENT							1			1			1	
SUSPENDED	ACTUAL	6		6	1						2	4	11	5	
SOLIDS	REQUIREMENT	15		15	15						15	15	15	15	
ZINC TOTAL	ACTUAL				0.2						0.2			0.2	
	REQUIREMENT				1						1			1	
LEAD-TOTAL	ACTUAL							0.06			0.04			0.05	
	REQUIREMENT							0.4			0.4			0.4	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Domtar Chemical Grp. CDC Division
& PLANT LOCATION: Orillia

INDUSTRIAL SECTOR: Organic Chemicals, Synthetic Fibres

RECEIVING WATERBODY: DIRECT : Lake St. John

INDIRECT: Georgian Bay

DESCRIPTION OF ACTIVITY: Produces detergents and detergent bases

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance.

IMIS NO.: 0000140004 SIC CODE: 376 MOE REGION: Central DISTRICT: Barrie

d0886

DOMTAR CHEMICAL GRP CDC DIVISION - 0000140004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		128	142	142	130	135	149	132	146	174	124	140	130	139	
pH		7.7	7.4	7.4	7.5	7.6	7.6	7.7	7.9	8	7.7	7.8	7.6		
AMMONIA NITROGEN	ACTUAL	0.089	0.142	0.142	0.065	0.108	0.104	0.079	0.073	0.087	0.05	0.056	0.052	0.087	
	REQUIREMENT	1.28	1.42	1.42	1.3	1.35	1.49	1.32	1.46	1.74	1.24	1.4	1.3	1.39	
NITRATES AND NITRITES	ACTUAL	0.256	0.071	0	0	0.081	0.003	0.04	0.26	0.14	0	0	0.13	0.081	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
PHENOLS	ACTUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	
	REQUIREMENT	0.00256	0.00284	0.00284	0.0026	0.0027	0.00298	0.00264	0.00292	0.00348	0.00248	0.0028	0.0026	0.00278	
PHOSPHOROUS TOTAL	ACTUAL	0.014	0.016	0.006	0.007	0.004	0.004	0.005	0.004	0.005	0.003	0.004	0.003	0.005	
	REQUIREMENT	0.128	0.142	0.142	0.13	0.135	0.149	0.132	0.146	0.174	0.124	0.14	0.13	0.139	
DISSOLVED SOLIDS	ACTUAL	1.41	0.99	0.99	1.56	1.35	0.89	0.53	1.02	1.57	1.12	1.26	1.43	1.18	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL ORGANIC CARBON	ACTUAL	1.22	1.16	1.14	1.6	1.04	1.18	0.99	1.12	1.32	1.11	1.12	1.39	1.2	
	REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Domtar Wood Preserving
& PLANT LOCATION: Trenton

INDUSTRIAL SECTOR: Wood Preserver

RECEIVING WATERBODY: DIRECT : Trent River

INDIRECT: Bay of Quinte, Lake Ontario

DESCRIPTION OF ACTIVITY: Wood preserving: Creosote and oil for hardwood railway ties and oil and pentachlorophenol for utility poles.

EFFLUENT QUALITY: Contamination by chlorophenol, phenols and low levels of several priority pollutants.

EFFLUENT TREATMENT: A portion of the discharge is treated using activated carbon filters.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance.
Domtar will be submitting an application for approval of an upgrade to their effluent treatment process in the spring of 1987.
Required treatment effluent objectives for carbon filtration system set out in Certificate of Approval #4-081-81 dated September 21st, 1982.
Phenols: 20 micrograms/L; maximum loading .014 kg/day.
Pentachlorophenol: 100 micrograms/L; maximum loading .68 kg/day.

IMIS NO.: 0000141200 SIC CODE: 2591 MOE REGION: Southeast DISTRICT: Kingston

d0886

DOMTAR WOOD PRESERVING - 0000141200
TRENTON

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	_	968	955	873	1150	1051	827	1650	1470	847	816	
PHENOLS	ACTUAL	_	_	_	0.063	0.063	0.092	0.034	0.49	0.029	0.038	0.206	0.041	0.117	12
	REQUIREMENT				0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	
OIL AND GREASE	ACTUAL	_	_	_	0.47	1.22	0.36	0.006	0.008	0.002	0.015	0.003	0.002	0.262	
	REQUIREMENT														
PENTACHLORO-PHENOL	ACTUAL	_	_	_	0.54	0.046	0.64	0.002	0.001	0.574	2.98	1.95	0.868	0.843	3
	REQUIREMENT				0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: DuPont Canada Inc. Nipissing Works
& PLANT LOCATION: North Bay INDUSTRIAL SECTOR: Inorganic Chemicals

RECEIVING WATERBODY: DIRECT : Wasa River - Lake Nipissing

INDIRECT: 121 km from French R. Main Channel

DESCRIPTION OF ACTIVITY: Production of explosives.

EFFLUENT QUALITY: Contains nitrates and ammonia.

EFFLUENT TREATMENT: Equalization pond for pH control.

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance.

IMIS NO.: 0000080200 SIC CODE: 379 MOE REGION: Northeast DISTRICT: North Bay

d1186

DUPONT CANADA INC - 0000080200
NIPISSING WORKS

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		4370	4450	5180	6340	4470	3470	3840	3640	3870	4305	3370	_	4360	
FIELD pH		7.2	7	7.1	6.9	6.7	6.8	7.1	7	7.2	7.1	7.2	_		
AMMONIA	ACTUAL	12.6	16.1	18.8	27.8	23.8	19.4	10.03	8.2	8.7	9.7	25.7	_	24.2	
NITROGEN	REQUIREMENT	43.7	44.5	51.8	63.4	44.7	34.7	38.4	36.4	38.7	43.05	39.7		43.6	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Eldorado Resources Ltd.
& PLANT LOCATION: Blind River

INDUSTRIAL SECTOR: Metal Mining, Smelting and Refining

RECEIVING WATERBODY: DIRECT : Mississagi R. mouth

INDIRECT: North Channel (Lake Huron)

DESCRIPTION OF ACTIVITY: Uranium refining using concentrated nitric acid solvent , extraction and evaporation/decomposition of the nitrate to the oxide by the addition of heat.

EFFLUENT QUALITY: Effluent contains Radium 226, nitrates uranium and phosphorous.

EFFLUENT TREATMENT: Holding ponds.

DISCHARGE TYPE: Batch

COMMENTS:

In compliance with AECB license requirements.

IMIS NO.: 0000830308 SIC CODE: 295 MOE REGION: Northeast DISTRICT: Sault Ste. Mari

d0886

ELDORADO RESOURCES LTD - 0000820308
BLIND RIVER

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY
RADIUM IN BECQUERELS/LITRE

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		373	461	457	410	465	496	207	195	325	219	362	326	358	
RADIUM 226	ACTUAL	0.052	_	0.44	_	_	0.0597	0	_	0	_	_	_	0.11	
FILTERED	REQUIREMENT	11		11			11	11		11				11	
NITRATES	ACTUAL	10.4	10.1	16.9	10.3	9.77	7.94	4.55	1.85	6.18	6.35	11.2	8.48	8.67	
	REQUIREMENT	373	461	457	410	465	496	207	195	325	219	362	326	358	
PHOSPHOROUS	ACTUAL	0.41	0.43	0.37	0.33	0.42	0.6	0.41	0.2	0.26	0.26	0.36	0.39	0.37	
TOTAL	REQUIREMENT														
URANIUM	ACTUAL	0.06	0.043	0.034	0.037	0	0.094	0.01	0.014	0.023	0.018	0.08	0.029	0.037	
	REQUIREMENT	7.5	9.2	9.1	8.2	9.3	9.9	4.1	3.9	6.5	4.4	7.2	6.5	7.2	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Exolon
& PLANT LOCATION: Thorold

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT : 9.7 km from Beaverdaus Pond to 12 Mile Creek

INDIRECT: Lake Ontario

DESCRIPTION OF ACTIVITY: Manufactures abrasive products

EFFLUENT QUALITY: Furnace cooling water.

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

Suspended Solids not in compliance.
Sampling and analytical methodology under review. Process water is furnace cooling water only.

IMIS NO.: 0001640002 SIC CODE: 357 MOE REGION: West Central DISTRICT: Welland

d0886

EXOLON - 0001640002

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		13090	13090	13090	13090	13090	13090	13090	13090	13090	13090	13090	13090	13090	
SUSPENDED SOLIDS	ACTUAL	49.8	65.5	0	0	864	0	26.2	340	327	0	3630	0	442	4
	REQUIREMENT	196	196	196	196	196	196	196	196	196	196	196	196	196	
OIL AND GREASE	ACTUAL	13.09	26.2	13.09	13.09	13.09	13.09	13.09	13.09	13.09	_	13.09	13.09	14.5	
	REQUIREMENT	196	196	196	196	196	196	196	196	196	196	196	196	196	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Gay Lee Foods Co-op Ltd.
& PLANT LOCATION: Teeswater INDUSTRIAL SECTOR: Food and Beverage

RECEIVING WATERBODY: DIRECT : Teeswater R.

INDIRECT: Lake Huron

DESCRIPTION OF ACTIVITY: Milk is made into butter and/or dried.

EFFLUENT QUALITY: Contains organic compounds such as proteins, sugars etc.

EFFLUENT TREATMENT: Secondary

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance for Suspended Solids.

IMIS NO.: 0001000009 SIC CODE: 104 MOE REGION: Southwest DISTRICT: Owen Sound

d0886

GAY LEE FOODS COOPERATIVE LTD - 0001000009

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		29.4	29.4	29.4	95.7	71.4	71.4	71.4	71.4	37.8	29.4	29.4	29.4	49.6	
BIOCHEM. OXYGEN	ACTUAL	0.0486	0.11	0.05	0.92	0.86	0.72	0.59	0.74	0.2	0.129	0.074	0.058	0.375	
DEMAND	REQUIREMENT	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	
SUSPENDED	ACTUAL	0	0.26	0.086	0.02	1.97	0.27	0.1	0.297	0.02	0.059	0	0.127	0.27	
SOLIDS	REQUIREMENT	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	
pH		7.67	7.77	7.77	7.77	7.52	7.56	7.47	7.65	7.43	7.47	7.32	7.29		

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Inco Metals Co.
& PLANT LOCATION: Shebandowan

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Shebandowan R. to Kaministiquia R.

INDIRECT: 130 km to Lake Superior

DESCRIPTION OF ACTIVITY: Base metal mining.

EFFLUENT QUALITY: Heavy metals, suspended solids and pH.

EFFLUENT TREATMENT: Polishing lagoon (tailings pond).

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance during discharge.
Ceased operation as of early 1985. May resume operation pending economic climate.
Effluent from the tailings pond was sampled once during 1985 and tested by an aerated 96-hr. rainbow trout. The sample was found to have been non-lethal.

IMIS NO.: 0001690908 SIC CODE: 0592 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

INCO METALS COMPANY - 0001690908
SHEBANDOWAN

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		3000	3000	3000	3000	3000	3000	_	3000	3000	3000	3000	3000	3000	
pH		7.3	7.4	7.4	7.2	7.9	8.4	_	7.9	7.9	8.1	7.5	7.1		
COPPER TOTAL	ACTUAL	0.126	0.057	0.051	0.042	0.015	0.003	_	0.009	0.003	0.033	0.034	0.162	0.049	
	REQUIREMENT	0.9	0.9	0.9	0.9	0.9	0.9		0.9	0.9	0.9	0.9	0.9	0.9	
IRON TOTAL	ACTUAL	0.51	0.66	0.9	0.87	0.621	0.576	_	0.405	1.88	0.333	0.402	0.93	0.735	
	REQUIREMENT	3	3	3	3	3	3		3	3	3	3	3	3	
NICKEL TOTAL	ACTUAL	0.495	0.489	0.555	0.483	0.564	0.486	_	0.411	0.405	0.501	0.582	1.37	0.576	
	REQUIREMENT	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	
LEAD TOTAL	ACTUAL	0.006	0.006	0.006	0.006	0.006	0.006	_	0.006	0.006	0.072	0.034	0.084	0.022	
	REQUIREMENT	0.6	0.6	0.6	0.6	0.6	0.6		0.6	0.6	0.6	0.6	0.6	0.6	
SUSPENDED	ACTUAL	3	3	6	6	9	18	_	3	3	3	6	6	6	
SOLIDS	REQUIREMENT	45	45	45	45	45	45	45	45	45	45	45	45	45	
ZINC TOTAL	ACTUAL	0.027	0.006	0.147	0.036	0.003	0.006	_	0.186	0.006	0.056	0.074	0.143	0.063	
	REQUIREMENT	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Inco Ltd.
& PLANT LOCATION: Copper Cliff Nickel Refinery INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Spanish R.

INDIRECT: 62.5 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY:

EFFLUENT QUALITY:

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

Nickel and pH not in compliance.
Proper metal (Nickel) precipitation requires pH higher than guideline (9.5).

IMIS NO.: 0001690403 SIC CODE: 295 MOE REGION: Northeast DISTRICT: Sudbury

d1186

INCO LTD - 0001690403
COPPER CLIFF NICKEL REFINERY

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1570	1680	2160	2000	2340	950	588	1550	1090	2160	1690	760	1545	
NICKEL TOTAL	ACTUAL	2	0.8	0.9	1	1.17	0.29	0.39	0.71	0.34	1.41	2.2	0.67	0.999	2
	REQUIREMENT	1.57	1.68	2.16	2	2.34	0.95	0.59	1.55	1.09	2.16	1.69	0.76	1.545	
AMMONIA	ACTUAL	0.3	3.3	4.3	2.4	1.4	0.09	0.24	1.08	0.33	0.87	0.85	0.46	1.3	
NITROGEN	REQUIREMENT	15.7	16.8	21.6	20	23.4	9.5	5.88	15.5	10.9	21.6	16.9	7.6	15.45	
pH		9.4	10	9.4	9.7	10	10.6	9.8	10.2	10.7	10.2	9.5	9.4		8
SUSPENDED	ACTUAL	3.1	1.7	2.1	8	14	6.7	1.76	6.19	8.72	13	8.45	3.04	6.4	
SOLIDS	REQUIREMENT	23.6	25.2	32.4	30	35.1	14.3	8.82	23.3	16.4	32.4	25.4	11.4	23.3	

WASTEWATER DISCHARGE SURVEY
1985

COMPANY NAME: Inco Ltd. Crean Hill Mine
& PLANT LOCATION: Copper Cliff

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Spanish R,

INDIRECT: 52.5 km to Lake Huron (North Channel)

DESCRIPTION OF ACTIVITY: Mining and primary crushing of ore.

EFFLUENT QUALITY: Contains copper, nickel and iron sulphates.

EFFLUENT TREATMENT: Effluent from tailings is neutralized with lime.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance for Nickel for the month of March.
Exceedance due to high water flow above normal spring runoff.

IMIS NO.: 0001690809 SIC CODE: 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

INCO LTD - 0001690809
CREAN HILL MINE

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	12200	_	_	1550	_	_	185	16400	_	_	7600	
COPPER TOTAL	ACTUAL	_	_	1.2	_	_	0.016	_	_	0.007	0.05	_	_	0.32	
	REQUIREMENT														
IRON TOTAL	ACTUAL	_	_	1.3	_	_	0.093	_	_	0.019	2.8	_	_	1.05	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	_	_	6.1	_	_	0.078	_	_	0.019	0.8	_	_	1.75	
	REQUIREMENT														
ZINC TOTAL	ACTUAL	_	_	2.4	_	_	0.016	_	_	0.019	1.2	_	_	0.909	
	REQUIREMENT														
AMMONIA	ACTUAL	_	_	2.4	_	_	0.16	_	_	0.019	1.6	_	_	1.045	
NITROGEN	REQUIREMENT			12.3			1.55			0.185	16.4			7.6	
pH		_	_	11	_	_	9.6	_	_	8.7	8.8	_	_		2
SUSPENDED	ACTUAL	_	_	36.7	_	_	1.55	_	_	0.31	16.4	_	_	13.7	
SOLIDS	REQUIREMENT			185			23.3			2.78					

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Inco Ltd. Levack Tailings Area
& PLANT LOCATION: Copper Cliff

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Spanish R.

INDIRECT: 113 km to Lake Huron

DESCRIPTION OF ACTIVITY: Mining and crushing operations.

EFFLUENT QUALITY: Contains dissolved nickel and copper sulphates.

EFFLUENT TREATMENT: Effluent from tailings is limed prior to discharge.

DISCHARGE TYPE: Continuous

COMMENTS:

Suspended Solids not in compliance.
Proper metal precipitation requires higher pH than guideline (9.5).
Low flow and high pH levels (batch treatment) are reasons for exceedances.

IMIS NO.: 0001690106 SIC CODE: 0592 MOE REGION: Northwest DISTRICT: Sudbury

d1186

INCO LTD - 0001590106
LEVACK TAILINGS AREA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1310	1640	2530	60	1130	220	1130	489	245	1710	3080	_	1140	
COPPER TOTAL	ACTUAL	0.2	0.2	0.3	0.1	0.11	0.004	0.02	0.01	0.005	0.03	0.25	0.08	0.109	
	REQUIREMENT														
IRON TOTAL	ACTUAL	0.4	0.5	1	0.01	0.11	0.03	0.01	0.12	0.08	2.55	2.19	0.08	0.59	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	1.4	1.5	9.3	0.1	0.23	0.24	0.28	0.09	0.04	10.61	1.29	0.78	2.16	
	REQUIREMENT														
ZINC TOTAL	ACTUAL	0	0	0	0.1	0.11	0.004	0.02	0.01	0.002	0.02	_	0.08	0.043	
	REQUIREMENT														
AMMONIA	ACTUAL	2.2	10.8	22.8	0.16	2.03	0.39	0.68	0.73	0.61	7.83	12.02	6.1	5.53	
NITROGEN	REQUIREMENT	13.1	16.4	25.9	0.6	11.3	2.2	11.3	4.89	2.45	17.1	30.08		12.4	
pH		11.3	10.6	8.5	11.6	10.2	11.2	10.3	11.9	11.9	9.2	10.7	11.2	10.7	10
SUSPENDED	ACTUAL	48.4	13.1	7.8	0.45	4.51	2.18	3.37	7.34	8.08	13.7	15.4	21.1	12.1	4
SOLIDS	REQUIREMENT	19.7		38.9				17	7.34	3.68	2.57		_		

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Inco Ltd. Frood Stobie Emergency Tailings Area
& PLANT LOCATION: Copper Cliff INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : 77.5 km to Lake Huron (North Channel)

INDIRECT:

DESCRIPTION OF ACTIVITY: Mining and concentrating sulphide ores for smelting.

EFFLUENT QUALITY: Contains nickel and iron sulphates.

EFFLUENT TREATMENT: Effluent from tailings area is neutralized with lime.

DISCHARGE TYPE: Continuous

COMMENTS:

Not in compliance for Suspended Solids.
Suspended Solids in exceedance in April due to high water flow from normal spring runoff.

IMIS NO.: 0001690205 SIC CODE: 0592 MOE REGION: Northeast DISTRICT: Sudbury

d1186

INCO LTD - 0001690205
FROOD STOBIE EMERGENCY TAILINGS AREA

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	_	1310	_	_	_	85	6	_	98	5	301	
IRON TOTAL	ACTUAL	_	_	_	228	_	_	_	0.74	0.76	_	2.15	0.13	46.3	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	_	_	_	24.2	_	_	_	17.1	7.02	_	7.74	15.2	14.3	
	REQUIREMENT														
ZINC TOTAL	ACTUAL	_	_	_	1.31	_	_	_	0.05	0.001	_	0.03	0.04	0.286	
	REQUIREMENT														
SUSPENDED	ACTUAL	_	_	_	1701	_	_	_	0.25	0.006	_	0.29	_	425	1
SOLIDS	REQUIREMENT				19.7				1.28	0.09		1.47		4.52	
pH		_	_	_	3.9	_	_	_	3	3.2	_	3.3	2.6	3.2	5

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Kimberly Clark of Canada
& PLANT LOCATION: Huntsville

INDUSTRIAL SECTOR: Pulp and Paper Mill

RECEIVING WATERBODY: DIRECT : Muskoka R.

INDIRECT:

DESCRIPTION OF ACTIVITY: Converts pulp into personal paper products

EFFLUENT QUALITY: Practically zero effluent

EFFLUENT TREATMENT: Conventional and tertiary

DISCHARGE TYPE: Intermittent

COMMENTS:

In compliance.
Direct discharge seasonal. Approxiamtely 6 months out of the year.
Alternate disposal is land spraying. During May - June and August - October company sprayed on approved area - no discharge.

IMIS NO.: 0000830109 SIC CODE: 271 MOE REGION: Central DISTRICT: Barrie

d0886n2486

KIMBERLY CLARK OF CANADA LTD - 0000830109
HUNTSVILLE MILL

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		762	762	909	1037	_	_	659	_	_	_	1055	873	864	
CHEMICAL OXYGEN DEMAND	ACTUAL	41.4	51.1	91.8	11.5	_	_	42.8	_	_	_	85.5	64.6	68.3	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	2.29	2.29	50.9	62.2	_	_	52.7	_	_	_	6.33	1.75	4.07	
	REQUIREMENT														
PHOSPHOROUS TOTAL	ACTUAL	0.005	0.002	0.005	0.005	_	_	0.007	_	_	_	0.008	0.003	0.005	
	REQUIREMENT	0.762	0.762	0.909	1.037			0.659				1.055	0.873	0.864	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Mitsubishi Canada Inc.
& PLANT LOCATION: Midland

INDUSTRIAL SECTOR:

RECEIVING WATERBODY: DIRECT : Wye River

INDIRECT: Lake Huron (Georgian Bay)

DESCRIPTION OF ACTIVITY: Manufactures television tubes.

EFFLUENT QUALITY: Contains trace organics

EFFLUENT TREATMENT:

DISCHARGE TYPE: Continuous

COMMENTS:

In compliance.
Certificate of Approval limits fluoride discharge to 141 kg per four week period.

IMIS NO.: 0001880004 SIC CODE: 334 3399 MOE REGION: Central DISTRICT: Barrie

d0886

MITSUBISHI ELECTRONICS IND. CANADA INC - 0001880004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1420	2000	2470	2290	2040	1470	8270	8720	8820	9090	9220	7880	5310	
pH		7.6	7.3	7.2	7.4	7.9	8.3	8.2	8.5	8	7.6	7.8	7.8		
CHROMIUM +6	ACTUAL	0.142	0.2	0.25	0.23	0.2	0.18	1.08	1.05	1.15	0.91	0.69	0.47	0.546	
	REQUIREMENT	1.42	2	2.47	2.29	2.04	1.47	8.27	8.72	8.82	9.09	9.22	7.88	5.31	
FLUORIDE	ACTUAL	1.13	2.4	2.72	4.35	3.05	3.9	34.7	42.7	31.7	23.8	37.2	34.9	14.5	
	REQUIREMENT														
TOTAL SOLIDS	ACTUAL	526	833	1200	1030	724	498	2620	2710	2690	3310	4840	3700	2090	
	REQUIREMENT														
DISSOLVED SOLIDS	ACTUAL	15.4	20.4	24.5	25	25.9	10.7	78.6	56.7	62.6	72.4	48.7	40.1	45.7	
	REQUIREMENT														

WASTEWATER DISCHARGE SURVEY
1985

COMPANY NAME: Noranda Hemlo Inc.
& PLANT LOCATION: Marathon

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Lim Lake

INDIRECT: Lake Superior

DESCRIPTION OF ACTIVITY: Gold mining and milling.

EFFLUENT QUALITY: Heavy metals, suspended solids, pH, cyanide.

EFFLUENT TREATMENT: Approved treatment is SO2 - air system for cyanide oxidation of effluent.
Disposal area decant to Lim Lake. Mill site sedimentation pond effluent to Cedar Creek.

DISCHARGE TYPE: continuous

COMMENTS:

pH not in compliance.
A number of cyanide destruction methods are currently being examined.
The final effluent was sampled 12 times during 1985 and tested by aerated 96-hr. rainbow trout bioassays (LC50 range of 13.4 - >100%). Eight of the LC50's were in the range of 13.4 - 24%.

IMIS NO.: 0042110205 SIC CODE: 0592 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

NORANDA HEMLO
MARATHON

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		_	_	_	_	_	_	_	132	138	151	33.8	93.9		
SUSPENDED SOLIDS	ACTUAL	_	_	_	_	_	_	_	110	115	126	28.2	78.2		
	REQUIREMENT								132	138	151	33.8	93.9		
pH		_	_	_	_	_	_	_	10.4	10.4	10.5	10.3	8.97		4
COPPER	ACTUAL	_	_	_	_	_	_	_	1.31	1.38	1.51	0.338	0.939		
	REQUIREMENT								39.6	41.4	45.3	10.1	28.2		
ZINC	ACTUAL	_	_	_	_	_	_	_	2.1	2.3	2.5	0.56	1.56		
	REQUIREMENT								66	69	75.5	16.9	47		

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Noranda Mines Ltd. GECD Div.
& PLANT LOCATION: Manitouwadge

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Black R. to Pic R.

INDIRECT: 154 km to Lake Superior

DESCRIPTION OF ACTIVITY: Base metal mining.

EFFLUENT QUALITY: Contains suspended solids, heavy metals, and ammonia.

EFFLUENT TREATMENT: pH adjustment and clarification of metal precipitates from tailing area and seepage.

DISCHARGE TYPE: Continuous

COMMENTS:

Suspended Solids not in compliance.
Treated effluent (as reported) discharged to a swamp for further polishing.
The final effluent was sampled 2 times during 1985 and tested by aerated 96-hr. rainbow trout bioassays.
Both of the LC50's were estimated to have been equal to 11.8%.

IMIS NO.: 0001800002 SIC CODE: 0592 MOE REGION: Northwest DISTRICT: Thunder Bay

d0886

NORANDA MINES LTD - 0001800002
GRCD DIVISION

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		3080	3420	3820	4706	4909	4440	3620	2430	3330	3560	3690	3780	3730	
pH		8.9	8.9	8.9	9.1	9.2	9.2	9.1	9.1	9.1	9	9	9		
COPPER TOTAL	ACTUAL	0.8	1.33	3.78	2.35	2.36	1.11	1.01	1.09	1.17	1.71	1.51	1.47	1.63	
	REQUIREMENT	3.08	3.42	3.82	4.71	4.91	4.44	3.62	2.43	3.33	3.56	3.69	3.78	3.73	
SUSPENDED	ACTUAL	66.3	47.6	70.3	93.5	90.1	19.3	84.4	51.8	86.5	83.3	76	55.2	70.1	9
SOLIDS	REQUIREMENT	46.2	51.3	57.3	70.6	73.4	66.6	54.3	36.5	50	53.4	55.4	56.7	56	
ZINC TOTAL	ACTUAL	0.46	0.24	0.53	0.61	0.98	1.07	0.76	0.61	0.77	0.82	0.88	0	0.65	
	REQUIREMENT	3.08	3.42	3.82	4.71	4.91	4.44	3.62	2.43	3.33	3.56	3.69	3.78	3.73	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Sherman Mine
& PLANT LOCATION: Temagami

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Lake Temagami

INDIRECT: Sturgeon R. to Lake Nipissing

DESCRIPTION OF ACTIVITY: Open pit mining. Concentrating iron ore to pellets.

EFFLUENT QUALITY: Contains suspended solids (iron) and dissolved inorganic salts

EFFLUENT TREATMENT: Tailings impoundment.

DISCHARGE TYPE: Continuous

COMMENTS:

Copper not in compliance.
Limits based on guidelines for Ontario mine tailings.

IMIS NO.: 0001540004 SIC CODE: 058 MOE REGION: Northeast DISTRICT: North Bay

d0886

SHERMAN MINE - 0001540004

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW (Estimated)		0	0	0	10700	0	10700	10700	0	0	0	0	0	2675	
pH		_	_	_	7	_	7	7.4	_	_	_	_	_	7.1	
COPPER TOTAL	ACTUAL	_	_	_	0.1	_	0.3	0.1	_	_	_	_	_	0.04	
	REQUIREMENT				10.7		10.7	10.7						10.7	
SUSPENDED SOLIDS	ACTUAL	_	_	_	44	_	22	11	_	_	_	_	_	6	
	REQUIREMENT				161		161	161						161	
ZINC TOTAL	ACTUAL	_	_	_	_	_	1	1	_	_	_	_	_	0.1	
	REQUIREMENT						10.7	10.7						10.7	

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: The Algoma Steel Corp. Ltd. (Ore Div.)
& PLANT LOCATION: Wawa

INDUSTRIAL SECTOR: Metal Mining, Smelting, Refining

RECEIVING WATERBODY: DIRECT : Magpie R.

INDIRECT: 10 km to Lake Superior

DESCRIPTION OF ACTIVITY: Sulphur bearing iron ore is roasted to make iron pellets

EFFLUENT QUALITY: Contains suspended solids (metallic chlorides) and dissolved metal sulphates

EFFLUENT TREATMENT: Tailings pond system (3 ponds) in series.

DISCHARGE TYPE: Continuous

COMMENTS:

No formal requirements but effluent discharge quality consistently meets provincial mine effluent quality objectives.

IMIS NO.: 0000040105 SIC CODE: 058 MOE REGION: Northeast DISTRICT: Sault Ste. Mari
d0886

THE ALGOMA STEEL CORP LTD - 0000040105
WAWA

ALL VALUES ARE IN CONCENTRATION UNITS
(MG/L)

pH LIMIT 5.5 - 9.5

PARAMETER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
pH		7.6	7.5	7.6	7.8	7.7	7.4	7.6	7.4	7.3	7.5	7.5	7.5		
ALKALINITY AS CaCO3	ACTUAL	48.5	29.5	34.5	27.5	56	60	130	73	88.5	45.5	38.5	46	56.3	
	REQUIREMENT														
COPPER TOTAL	ACTUAL	0	0	0	0	0.01	0	0	0	0.01	0	0	0	0	
	REQUIREMENT														
IRON TOTAL	ACTUAL	0.07	0.05	0.05	0.05	0.05	0.05	0.07	0.1	0.05	0.05	0.05	0.05	0.06	
	REQUIREMENT														
MANGANESE TOTAL	ACTUAL	0.06	0.02	0.01	0.15	0.1	1.04	0.07	1.21	0.12	0.22	1.03	0.13	0.34	
	REQUIREMENT														
NICKEL TOTAL	ACTUAL	0	0	0	0	0	0.02	0	0	0	0.02	0	0	0	
	REQUIREMENT														
LEAD TOTAL	ACTUAL	0	0	0	0	0	0	0.03	0.2	0	0	0	0	0	
	REQUIREMENT														
DISSOLVED TOTALS	ACTUAL	2.5	1	1	1.5	1	1	9	1	1	1	1	1	1.8	
	REQUIREMENT														
SUSPENDED SOLIDS	ACTUAL	489	414	509	708	935	934	1323	1316	1060	846	815	753	842	
	REQUIREMENT														
SULPHATES	ACTUAL	270	250	265	417	545	550	737	745	620	440	440	440	476	
	REQUIREMENT														

WASTEWATER DISCHARGE SUMMARY
1985

COMPANY NAME: Washington Mills Ltd.
& PLANT LOCATION: Niagara Falls

INDUSTRIAL SECTOR: Industrial Minerals

RECEIVING WATERBODY: DIRECT : Welland R.

INDIRECT: 11 km to Lake Ontario

DESCRIPTION OF ACTIVITY: Abrasive oxides are manufactured in electric arc furnaces.

EFFLUENT QUALITY: Contains dissolved organic compounds and organic processing compounds

EFFLUENT TREATMENT: Oil water separation.

DISCHARGE TYPE: Continuous

COMMENTS:

Suspended Solids not in compliance for May, July, August and October. Suspended Solids in compliance on annual averages.

IMIS NO.: 0001950005 SIC CODE: 357 MOE REGION: West Central DISTRICT: Welland

d1586

WASHINGTON MILLS LTD. - 0001950005

ALL LOADS IN KG/DAY
ALL FLOWS IN CUBIC METRES/DAY

PARAMETER :		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	TOTAL EXCEEDANCES
FLOW		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
SUSPENDED SOLIDS	ACTUAL	0.247	6.66	3.8	9.51	29.5	21.9	51.3	63.7	23.8	29.5	17.1	19	23	4
	REQUIREMENT	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	
OIL AND GREASE	ACTUAL	0.19	0.19	0.19	0.19	0.19	0.19	0	0.19	0.19	0	0	0	0.127	
	REQUIREMENT	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	

DATE DUE

TD/897.5/R46/1987/MOE
Ontario Ministry of the En
Report on the 1985
industrial discharges anlz
into the c.1 a aa
Great Lakes Basin Ontario

Date	Issued To

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